Tissue Issue

New Zealand Wound Care Society

New Zealand Wound Care Society Newsletter

Issue 16 — March 2012

Welcome

By the time you read this, summer will almost be a past memory possibly along with the New Year's resolution(s)!

For those of you unable to attend the National Conference back in November and for those of us where it is a distant recollection, I urge you to read the 2 conference reports that have been submitted by recipients of NZWCS scholarships. One, written from a personal perspective is by Diane Hishon and has been included in this edition of TI; the other, on the website (www.nzwcs.org.nz) by Christine Cummings is a more detailed report encompassing subjects covered throughout the conference. Thanks to both for their contributions.

A major theme from the conference was that of improving patient outcomes by sharing good practice and incorporating new evidence. Conference is a perfect place to network, be inspired and question one's own practice. That's all good in the conference hall and away from the stress and business of patient care, but to make things change, one has to take these ideas away, sometimes add a little creativity to fit in their own patient care setting, implement and evaluate. To determine if a change in practice has been worthwhile, measurement and appraisal is essential and many of us come unstuck and feel less certain regarding this aspect of healthcare.

Measurement or 'care metrics' is Jan Weststrate's area of expertise within pressure injury prevention and his article on using run charts provides an overview of how events (healthcare associated and otherwise) fit within 2 boundaries: the ordinary and the extraordinary. Determining what these parameters are involves measurement of the right things and use of some simple maths. Have a read, a think and talk about it with colleagues to see if this is something you could do. Improving the patient's journey through the healthcare system is something we can all strive to achieve and like it or not, we increasingly have to be able to objectively demonstrate what we have achieved.

Finally — please, please continue to share your pearls of wisdom by thinking about contributing to Tissue Issue. I welcome reports, feedback, reviews, patient stories or forthcoming events that may be of interest to others.

Carol Tweed (Editor)

From the President

Welcome to the New Year, which is already proving to be an important year for the NZWCS with an invitation from AWMA and the APUAP to be a pan-Pacific partner in the next review of the EPUAP/NPUAP 2014 pressure ulcer guidelines. We will join Australia and Hong Kong in this review and after a round of e-mail consultation Pam Mitchell has been nominated as our representative on the group, with Emil Schmidt also acting as a New Zealand liaison.

It was certainly a relief to finally get to our national conference in Dunedin after several months delay and a number of troublesome hiccups!

Inside this issue

Editor of Tissue Issue

Carol Tweed

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What is the New Zealand Wound Care Society?

The NZWCS is a voluntary organisation made up of health care professionals from a variety of disciplines who share a common interest in wound management. As an organisation it gives its members an opportunity to share experience, expertise and knowledge providing a forum to network with other members throughout the country.

Currently there are fourteen branches New Zealand-wide. Each has an area coordinator and a national committee member. The area coordinator is responsible for coordinating meetings and seminars for the local branch members, while the national committee member represents each branch at a national level. In some areas these duties are undertaken by the same volunteer.

For more information & membership forms visit: www.nzwcs.org.nz

But it was all worth it in the end with over 320 delegates making their way South along with one of the largest trade exhibitions we have had at a conference. It was a brilliant atmosphere throughout the three days of the conference with many delegates telling us how much they were enjoying the event. Feedback from company reps was also very positive; the hum of the exhibition hall testament to how much delegates were soaking up all the latest and greatest in wound management products. The social events were also excellent as usual with dancing right to the last possible moment and then some at the dinner, and of course we cannot forget the addressing of the haggis, that was a spectacular wee affair itself!

Also during the conference welcome event we had the launch of the new Venous Leg Ulcer Guideline, for which we are now working on an implementation plan. Also launched was the consultation phase of the Pan Pacific Pressure Injury Guideline. This has been widely distributed across the health and disability sector so hopefully we will again get a high level of engagement and feedback from New Zealand organisations and individuals.

Other exciting news for the Society has come from two fronts. First was the invitation to nominate representatives from the NZWCS to sit on a new PHARMAC Subcommittee that will be looking at dermatology and skin care products, including wound management products. Four people have been nominated from the Society and PHARMAC will choose two of them to be representatives on the Subcommittee.

The second invitation has come from AWMA, who we have agreed to support in their bid for the 2016 WUWHS Congress, which will be held in Brisbane. You can visit the bid website here: http://www.awma.com.au/wuwhs2016-australiabid.

All in all it seems we are finally achieving some of the long term goals I set for my time as President – increasing our national voice and raising our international profile.

Wayne Naylor

President, NZWCS

Pressure Ulcer Advisory Group Report

It has been an exciting year for the NZWCS as we have been invited to work alongside AWMA, Hong Kong and Singapore on the Pan Pacific Clinical Practice Guideline for the Prevention and Management of Pressure Injury. Emil Schmidt and I have been your representatives in this process. Many of you have also been engaged in the consultation process and the formulation of the draft document. We would like to thank you for your commitment to this project. The feedback from October to December 2011 on the Draft Document has been collated and the Steering committee is currently looking at the revised draft, prior to our next meeting.

Australia and Japan were also approached to review the NPUAP / EPUAP "International Pressure Ulcer Guidelines". They requested that members of the current Pan Pacific collaboration also be included in this review. This has been agreed. We will have representation on this review group providing up to date feedback to the NZWCS.

Truly International Guidelines may be very close in the future which would be a major benefit to our patients' and colleagues.

We would like to thank you all for your participation in this project and look forward to your continued assistance.

Pam Mitchell
Co-ordinator Pressure Ulcer Advisory Group

Pan-Pacific Ulcer Forum Report

The Canberra forum to launch the Guidelines for Prevention and Treatment of Venous Leg Ulcer and Pressure Ulcer attracted 380 delegates and speakers from Australia, New Zealand, Hong Kong, Singapore, Austria, USA, and UK. There was also good representation and support from industry groups with trade displays, sponsorship and networking.

Two members of the New Zealand Wound Care Society participated in each group; Cathy Hammond and Pip Rutherford (VLU) and Emil Schmidt and Pam Mitchell (PI). We were well supported specialty groups and NZWCS members in consultation, debate, and teleconference.

Some presentations from the forum are available on the Pan Pacific Website— www.panpacificulcerforums.com.au.

Conference Notes

In the opening address Ms Susan Hunt Senior Nurse from the Department of Health and Aging commented on the global impact of these guidelines "from small things, big things grow". Implementation must be ongoing, planned, and include all players:

- Clinical champions
- Service provider perspectives — cost savings
- Benchmarking groups
- Tertiary initiations for teaching future clinicians about using guideline based models
- Linked to Clinical Pathways.

Chair of the Pan Pacific Forum Associate Professor Dr Kerlyn Carville introduced the PI Guideline and explained that a standardised format has been used and the term Pressure Injury (PI) adopted (as a stage 1 PI is not actually an ulcer).

Speakers asked if an implementation guideline should be developed along with education material and discussed a "penalties" vs. "rewards" approach for PI. In Japan a "penalty based system" did not work as PI were under reported, but a rewards system did work when key providers who met standards were given extra funding for things like employing a Wound CNS/NP type role.

The scope of the PI problem from the perspectives of the collaborating Pan Pacific organisations were presented by Mr Emil Schmidt and Ms Pam Mitchell (NZ) Dr Jenny Prentice (Australia) Ms Susan Law (Hong Kong) and Ms Susie Goh (Singapore). Their presentations highlighted several issues and strategies including

- Variability in PI reporting methods by Government, Ministry and organisations
- Accuracy problems in reporting — using data collection that is not designed for prevalence or audit.
- Under-reporting— culture of blame sometimes
- Difficulty getting data from private hospitals and community
- Use of mobile phones and digital devices to collect and store data
- Positive effects of prevalence audit on risk assessment rates in-patient admissions.

Professor David Hardman spoke on the concept of Expert Based Opinion having validity. He linked it to a theory that even now 'Experts' had no evidence that parachutes helped in rapid deceleration injury situations, but were still widely used!

Dr Jenny Prentice (WA) spoke on using 'Digiman' an electronic device that can plot a PI location (from community and hospital based patients), and data is sent via mobile phone to a central database.

Ms Rosie Forster from National Health Medical Research Council (NHMRC) identified the issue of translating knowledge into practice. In an American study it took 15.6 years from a new guideline launch to get less than 50% uptake — assuming the uptake was zero to begin with. It also took a minimum of 6.3 years to reach reviews, textbooks and papers and estimated a time lag of 9.3 years transition. NHMRC has given the VLU Guideline 'Gold Star' status. Professor Greg Schultz presented updates on Biofilms in wounds, effects on healing process and new diagnostic tools to identify high levels of proteases.

Biomarkers used by the military can tell if a wound is ready to change into a healing stage. Wound diagnostic development now includes a multiple biomarker chip as well as lab based parameters. Diagnostic targets include proteases, cytokines, and bacteria, as research has indicated that higher protease levels are linked to slow healing rates.

New developments in diagnostic parameters need to include

- Being rapid 10 minutes at bedside
- Not requiring instruments
- Single step method
- Quantitative (not a yes/no answer)
- Cheap $20–$40 US
- Be able to produce an acute permanent record for patient files.

Types of diagnostics

- Swab developed to indicate MMPs and different colours in results are measured using a chronometer
- Lateral flow strips (like pregnancy testing kits)
- Surface Plasmon Resonance Detector for Simultaneously Measuring Multiple Biomarkers
- Detection/exclusion of bacteria or yeast from biopsy, can count set groups or can count all bacterial species
- Detecting biofilm — takes 24 hours.

In a paper on Spinal Cord Injury (SCI) Ms Liz Howse warned that most SCI patients have unidentified head injury, affecting cognition, coping, and self-care patterns. Her presentation tracks the pathway to death from PI in the SCI population as well as an overview of demographics, risk factors, and costs of treatment.

Associate Professor Nicholas Graves an economist from the School of Public Health Queensland University explained how making an economic argument for reducing chronic wounds could be achieved. He also explained how funding is allocated within health environments. We need to demonstrate cost saving in ways such as using a cost/benefit model to demonstrate how our proposal will extend 'Quality Adjusted Life Years' (QALYs)

Implementation of guidelines was presented at the Arjo Huntleigh breakfast by Professor Michael Clark (NPUAP and EPUAP member). The next EPUAP meetings are in Israel in April 2012 and in Wales September 2012. (Yes…. Israel must be in Europe…. if it is included in Eurovision song contest, it must be!) He advised not to have an implementation plan as guidelines need to be relevant to all situations. He used a Welsh inpatient population audit as an example, (Welsh Tissue Viability Group) but they are well resourced with one TVN per 30,000 people while England has 1 TVN for 65,000 people. There was no proposed audit mechanism and huge variability between countries procedures. He also commented on how political influences effect how PIs should be counted.

Some use a 'Skin Bundle model

Surface

Keep moving

Incontinence

Nutrition

Also a 'Safety Cross' model is used to count PIs but this has a risk of blame not reward. Incident forms can collect data and is a management based national data collection tool, but the drawback is there are no feedback mechanisms and only count numbers not risk, grades, etc.

Mattress testing issues: USA tried to use a standardised support surface characterisation to assess and test mattresses. His team developed a test dummy/ mannequin, but difficult to know where to measure, what shape to use, what type of pressure sensor to use, (single sensor or single rays).Also used volunteers but found there was do definition of posture for a sitting, lying etc.

Professor Colin Song (Singapore) has developed an algorithm for chronic wounds: if no response after 1 week of VAC then this indicates problems that need to be investigated. Duplex scan is done to predict obstruction as part of baseline work-up, followed by angiography, then growth factors and platelet derived growth factors.

In papers on pressure injury a pattern of behaviours was often identified especially in young people:

- Depression
- Anger
- Not taking responsibility for treatment
- Then becoming more positive around self-care, and family resources.

Would be a good project for ACC to pilot perhaps?

Mr Evan Call Research Scientist spoke on 'Pressure — Friction — Shear' and mentioned the Brindle study in high risk patients when a sacral dressing group was compared with a non-dressing group. The study found shear does greater damage than compression load. With pressure tissue distortion is very harmful (Poisson Ratio) shear is worse by up to 48%.

He demonstrated the elbow test: Placing 2 fingers under elbow when arm extended the bend arm to see how much movement there is.

1. Dressings should move with skin and not cause shear
2. Dressing layers should move across each other
3. Dressings should bunch up when skin wrinkles
4. Should be easily separated
5. Adhesion should be elastic.

Professor Keith Harding presented on "educating the masses" including politicians, patients and professionals on wound care. Estimates based on the literature, government reports and industry based estimates are 300+ million surgical wounds, 20 million chronic wounds, and 100 + million burns/trauma, at a total cost of $70+ Billion. Issues discussed were around professional education in wound care, around variability in standards and competency, lack of wound care education in tertiary programmes, and increasing complexity of wound management and products globally. Keith suggests we need to produce good quality evidence on outcomes of education on patients, professionals and policy makers to inform our future strategies in education.

Professor Hugo Partsch paper outlined venous ulceration aetiology, pathophysiology, diagnosis and therapy, differential diagnosis with attention to getting the right diagnosis.

Two New Zealanders were on the VLU Guideline group, Cathy Hammond from Nurse Maud in Canterbury, and me. I was asked to participate in the panel discussion with and also to provide three workshops on using clinical pathways to help implement the new Guideline. Although workloads were quite steep at times, it has been rewarding to work with such a professional and dedicated team, and to participate in a unique trans-Tasman project. We are now working on how best to disseminate the VLU guidelines as well as a national implementation plan.

I would like to thank the NZWCS for their financial support to attend the forum in Canberra. New Zealand is now well placed to improve management, documentation and prevention on PIs and VLUs thus improving patient care.

The VLU completed guidelines are now available on: http://www.awma.com.au/publications/publications.php http://www.nzwcs.org.nz/publications/57-guidelines.html.

The draft Pressure Injury guideline which is out for public consultation until 15th December 2011 on www.awma.com.au (New Zealand has now been asked to participate in the planned Global Guidelines for PI) .

Pip Rutherford

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New Zealand Wound Care Society (NZWCS) Conference Report
November 2011

I was one of the fortunate recipients to receive a NZWCS Scholarship to attend the 2011 Wound Care Conference. Due to the disastrous earthquakes in Christchurch, the dates and venue were changed to the new Forsyth Barr Stadium in Dunedin. The organising committee worked extremely hard to ensure the conference proceeded successfully. The theme of the conference was Holistic Wound Care which included an exciting and informative programme for the three hundred & fifty delegates with international keynote speakers and local experts across a wide range of specialty topics relating to skin and wound management. This facilitated a great environment for learning and networking. Seven nurses from the Bay of Plenty (BOP) region were fortunate to be able to attend.

Three papers by BOP nurses were accepted for presentation at the conference.

Lyn Dalton & Sarah Craven Jones's poster 'It's more than JUST a Dressing' won best poster presentation. Heidi Darcy's research paper titled `Immune stimulating properties of medical grade honey' won best oral presentation. My oral presentation entitled `Improved Topical Negative Pressure Therapy Management and Outcomes' was well received and there have been enquiries regarding how this could be implemented in other DHBs. I was able to share the process of developing and completing the business case and facilitating the improved management of our limited number of topical negative pressure devices. Implementing these changes was a satisfying challenge and involved the management, responsibility and accountability for the process to ensure the goals were met. A year after the changes were made, I have been able to demonstrate the cost benefits of efficient and effective management of our TNP devices without compromising access for patients requiring this treatment.

I was asked to assist with the Conservative Sharp Wound Debridement (CSWD) workshop lead by Pip Rutherford (Nurse Practitioner, Hawkes Bay). CSWD has been performed by clinicians for many years without standardised training or assessment. Although there have been a few opportunities in NZ for CSWD training in workshops, there is currently not a recognised national programme to train, support and credential / certify a nurse to perform this advanced skill. Ideally a recognised national course for CSWD is recommended. At Hawke's Bay DHB, Pip has developed, a comprehensive nurses' training process and credentialing programme for CSWD which has been aligned with The New Zealand Nursing Council framework for extended practice.

Pip presented on the indications and contraindications for CSWD, the legal and accountability requirements, the practical training involved and assessment required to ensure competent clinicians and patient safety. There is the possibility that this programme can be shared with other DHBs. Pip has done a tremendous job and I commend her for her leadership in this work.

Following Pip's theory session, Sue Templeton (Advanced Wound Specialist, Royal District Nursing Service, South Australia and key note speaker at the conference), Yvonne Orrell (InterMed Nurse Educator) and I, supported several groups with the practical procedure of debriding a marked area of tissue from a pig's trotter using a scalpel, forceps and scissors. Although pig skin is different to human skin, the exercise demonstrated that this is a complex procedure with the clinician requiring an advanced knowledge of the anatomy & physiology of the skin & underlying structures.

Attending this conference has been beneficial for me both for increasing my knowledge and gave me the opportunity to share my experiences and practice tips with others. I learned about new treatments and processes and how we might incorporate these into our clinical practice to improve outcomes for our patients with wounds. I enjoyed networking with colleagues involved in wound management, sharing and questioning about issues and listening to their solutions. I attended numerous excellent presentations at the conference and was particularly impressed and inspired by the dynamic presentations and leadership demonstrated by our New Zealand Nurse Practitioners and Wound Care Specialist nurses. The NZWCS is fortunate to have active and enthusiastic members to inspire others.

Since returning from conference we have developed a new simplistic wound care colour coded assessment chart with dressing choices which has been reviewed by the BOPDHB Tissue Viability Group and will soon be available in all clinical areas. Two new sets of evidence based guidelines were presented which will also be incorporated into our practice. The recently published Australian and New Zealand Clinical Practice Guidelines for the Prevention and Management of Venous Leg Ulcers will be a resource for Compression Therapy Certification for our District Nurses. The draft edition of The Pan Pacific Clinical Practice Guidelines for the Prevention and Management of Pressure Injury were introduced at the conference and once finalised later this year will also be a great source of information and reference for practice. Jane Edwards and I have a particular interest in this as we critiqued some of the evidence prior to the release of the draft.

The prize won for Best Poster presentation by Lyn Dalton and Sarah Craven-Jones has been donated to the Whakatane District Nursing Service for a new camera.

I would like to thank the NZWCS for awarding my Scholarship to attend the 2011 Wound Care Conference and also wish to recognise the support of the BOP Director of Nursing who enables several of us to be actively involved in the local and national wound care scene as part of the NZWCS. The benefits of being a NZWSC member are many. The changes I facilitated in our DHB were inspired from a paper I read in the AWMA journal; we receive this free as part of our NZWCS membership.

By Diane Hishon Ambulatory Nurse Educator

Wound Care Advisor, Bay of Plenty

Run chart — your first choice in measuring improvement in pressure injury care

Pressure injury prevention takes place in a complex social system related to many interconnecting factors. The rate at which pressure injuries develop is influenced by the quality of care that is provided by the health care system, which involves many health care professionals, not just nursing staff. Adequate staffing, evidence based policies and high quality prevention devices are examples of tools or interventions that are required by nursing staff to effectively prevent patients from developing pressure injuries. Often forgotten is the facilitation of department staff with time to measure how many patients have or develop pressure injuries over time. This is especially important when new pressure injury prevention programs, or other quality interventions are implemented. Measuring provides staff with valuable information on how effective their program is and if particular issues need attention. A simple but effective instrument to use for this purpose is the run chart. This short article provides information on how to work with run charts.

Aspects of a run chart

Run charts comprise an X-axis and a Y-axis in which the X-axis displays the moments data have been collected on and the Y-axis is the frequency of occasions measured. So for pressure injuries, if you measure weekly the prevalence of patients with pressure injuries on a random day in a random chosen fixed number of patients (for example 15), the percentage of patients that have a pressure injury are displayed on the Y-axis and the number of weeks on the X-axis. For this purpose you decide what is going to be measured; this could be the number of patients that have a pressure injury stage 1–4, or just those ones that have stage 2–4 injuries.

These are the so called outcome indicators. Additionally you can collect data on some process indicators such as if risk assessment was carried out on admission or did the patient receive a leaflet with information on what he / she can do to prevent the development of pressure injuries. After collecting the data for at least 10-12 weeks the data is put into a graph as shown in figure 1.

The aim in creating the run chart from these data is to see if it shows non-random signals. Random signals are measurements that fit in the normal variations that a process has. We can plan for non-random signals to show up for example if a new pressure injury prevention quality program is introduced in the department. On such an occasion we want to see non-random signals in the data. It indicates the new program has made a difference.

From figure 1 it is very difficult to tell if the results show the pressure injury prevention program decreased the pressure injury prevalence. In order to make that judgment we add another important aspect to the chart, the median (see figure 2). To find the median, weekly observations from low to high are recorded and the number right in the middle is the median. On YouTube you can find a short video on this subject. (http://www.youtube.com/watch?v=uydzT_WiRz4). Plotting the median in the graph brings a bit more perspective but still we do not know if the quality program had an effect. To find out, four rules need to be applied to the data. These rules help to identify non-random signals in the graph.

Rule 1

Is there a shift in the data of six or more consecutive points all above or all below the median?

Rule 2

Do the data show a trend of five or more consecutive points all going up or all going down?

If there are two with the same data points just count the first one.

Rule 3

How many runs can be displayed in the run chart? A run is a series of data points on one side of the median. A smart way to find out how many runs there are is to count how many times the line crosses the median and add one. In our example this is 7+ 1. To know about the minimum and maximum number of runs you need to have in relation to the number of data points, there are tables on the internet that inform you on this at: http://qualitysafety.bmj.com/content/20/1/46.full.pdf

Rule 4

Is there an abnormally high or low point, either above or below the median? These are data points that differ obviously from the other points.

To find out if our data shows some non-random signals we test the run chart against the four rules. Rule 1 does not apply. There are attempts from week 11 onwards but it does not go any further than 4 data points. Rule 2 does not apply either. There is a maximum of 4 consecutive data point going up starting week 6. Rule 3: for 20 data points we need between 6 and 16 runs (NB. Data points on the median do not count as a data point). The line crosses the median 7 times and this makes 8 runs, so we have enough runs (see circles in figure 2). And rule 4 does not apply either, as there is no data point that obviously stands out. The two peaks in week 4 and 9 fit perfectly within the process.

In conclusion, although the first impression of the graph might be that the new quality program showed some positive signs, the run chart identifies that there are no non-random signals meaning no detectable change in the pressure injury prevalence since the pressure injury prevention quality program was introduced.

This maybe disappointing but it indicates we need to go back to the pressure injury quality process to identify why change hasn't occurred.

Run charts are a quick and easy way to evaluate pressure injury prevention processes in a department. They visualize the outcome in such a way that nurses and other health care professionals understand the meaning. This short article is an appetizer for those interested in quality improvement measurement techniques. Perla et al (2011) have written a more extensive article on the use of run chart and this is useful to read before you start using this methodology on the ward. This article is free to down load from: http://qualitysafety.bmj.com/content/20/1/46.full.pdf

Further information on run charts can also be obtained in the following books:

Lloyd, Robert. Quality Health Care : a Guide to Developing and Using Indicators. 1st ed. Sudbury Mass.: Jones and Bartlett Publishers, 2004.

Carey, Raymond. Measuring Quality Improvement in Healthcare : a Guide to Statistical Process Control Applications. New York: Quality Resources, 1995.

Literature

Perla, R. J., L. P. Provost, and S. K. Murray. "The Run Chart: a Simple Analytical Tool for Learning from Variation in Healthcare Processes." BMJ Quality & Safety 20 (January 12, 2011): 46-51.

Dr Jan Weststrate

Care-Metric

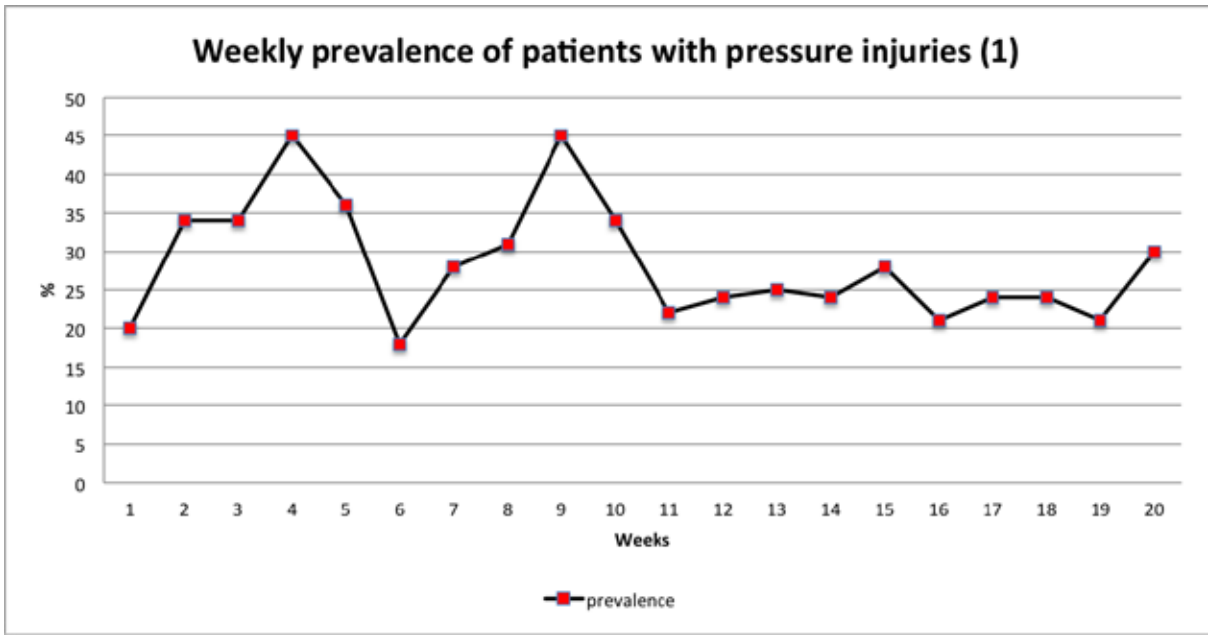
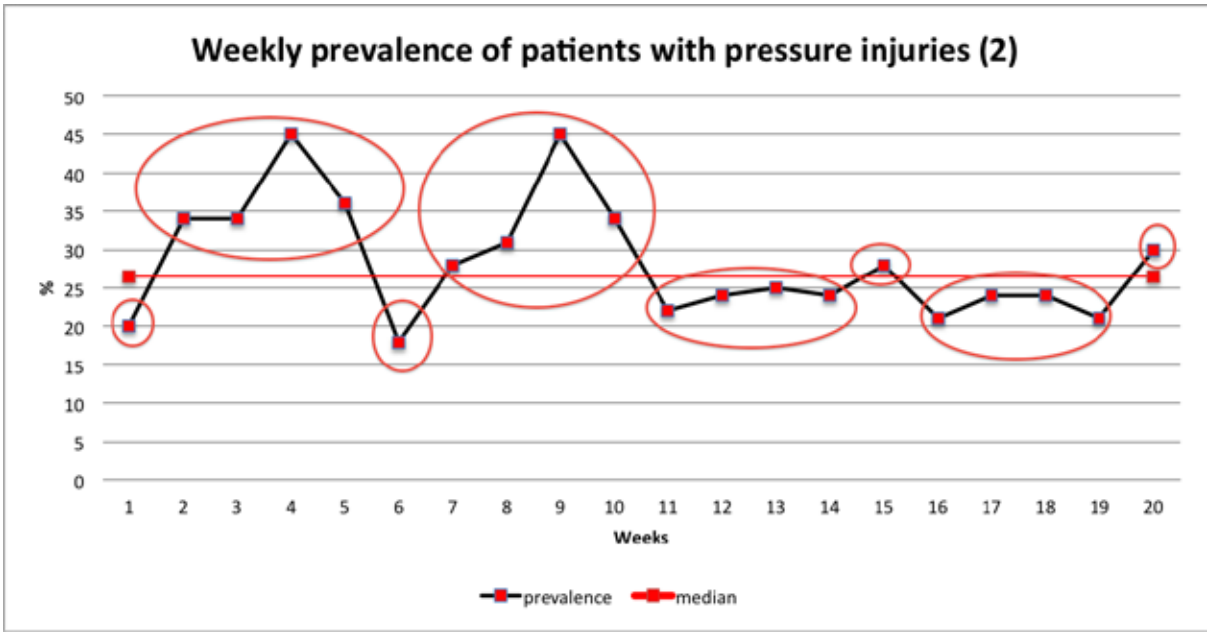


Figure 1: Prevalence of pressure injuries measured during 20 weeks

Figure 2: Prevalence of pressure injuries measured during 20 weeks plotted against the median.



Australia New Zealand Society of Vascular Nursing (ANZSVN)

The ANZSVN is a professional nursing organisation dedicated to promoting excellence in the nursing care of individuals with vascular disease by providing quality education, fostering clinical expertise, supporting nursing research and contributing to the prevention of vascular disease. It membership is drawn from nurses who work in theatre, radiology, ward settings and those who manage vascular related wounds.

The objectives of the ANZSVN are to:

- Represent Australian and New Zealand Vascular Nurses as a professional body and assume a leadership role in the advancement and promotion of the specialty of vascular nursing.
- Promote an Australian and New Zealand network of vascular nurses through a website, newsletters, conferences and the facilitation of regional groups.
- Liaise and collaborate with national and international professional bodies and individuals who share concern and interest for people with vascular disease.
- Enhance public awareness of vascular disease and encourage members to be active within the field of vascular health education and health promotion
- Assume the leadership role in defining and advancing the evidenced-based education of nurses involved in the care of patients with vascular disease.
- Facilitate and encourage vascular nursing research.

New Zealand's representative on this group is Dawn Sutton. If you are interested in joining this professional body please contact Dawn at kevin_dawn.sutton@clear.net.nz. For further information visit ANZSVN website at http://www.anzsvn.org/