NEW ZEALAND NURSES ORGANISATION | TŌPŪTANGA TAPUHI

PERIOPERATIVE NURSES COLLEGE N.Z.N.O

The Dissector

Journal of the Perioperative Nurses College of the New Zealand Nurses Organisation

March 2022, Volume 49, Number 4

REFLECTION
Meeting the Vaccination Challenge

MEDICAL IMAGING
Impact of demands on nursing workload

CLINICAL
Management of Colorectal Adenocarcinoma

PROFESSIONAL DEVELOPMENT
An EN at Burwood Hospital

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RA-19102021FS

The Dissector
The official Journal of the Perioperative Nurses College of the New Zealand Nurses Organisation (PNC[NZNO]).

March 2022, Volume 49, Number 4

www.nzno.org.nz/groups/colleges/perioperative_nurses_college
The Dissector is published on a quarterly basis (March, June, September & December) by Advantage Publishing Ltd.

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CIRCULATION:
The Dissector is direct mailed to all members of PNC,[NZNO] as well as other interested subscribers, libraries and teaching institutions.

NON-MEMBER SUBSCRIPTIONS
Within New Zealand, $70 (inc. postage) per annum. Overseas subscriptions (inc airmail postage): Australia: $80; Pacific Islands: $87; Thailand: $86; Vietnam: $87; India: $93; Pakistan: $93; China: $86; Japan: $86; Korea: $86; Singapore: $86; UAE: $93; USA: $86; Canada: $87; South Africa: $93; Ireland: $87; UK: $87.

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PNC,[NZNO] WEBSITE
http://www.nzno.org.nz/groups/colleges/perioperative_nurses_college
ISSN: 1174-7579

Our flexibility is being tested . . .

Tēnā koutou katoa. Welcome to the March issue of *The Dissector*. At the time of writing this, we are in the midst of the biggest outbreak of the COVID-19 pandemic. As the Omicron variant takes hold within our communities and hospitals, our personal and organisational resilience is being tested yet again, as our resources are strained to their limits. However, in the midst of this, I am reminded of how valuable and flexible our Perioperative Nursing workforce is.

Due to the volume of cases, along with critical staffing shortages, non-urgent elective surgery in my district health board has been deferred. The reduced service has meant that our Perioperative Nurses have been available to help throughout the hospital, in a variety of places such as the wards and emergency department. It has been clearly demonstrated that Perioperative Nurses' knowledge and skills are transferable to many different environments of care. I am proud to be part of a community who help our colleagues in other departments without hesitation, even when the uncertainty of an unfamiliar environment adds to their stress.

The Vaccination Challenge

Further demonstrating the flexibility and value of Perioperative Nurses, PACU nurse and Editorial Committee member Devika Cook provides us with a reflection on her experience setting up a COVID-19 vaccination centre last year. Initially trained as a vaccinator to be able to assist with influenza flu vaccinations in the hospital setting, Devika has been involved with innovative sites and mass vaccination events, and was the Clinical Lead of the COVID-19 Central Business District vaccination centre in Tamaki Makaurau (Auckland).

Colorectal Adenocarcinoma

Our clinical article for this issue is from novice author Amanda Lindsay. Amanda provides us with a review of the literature on the perioperative management of patients with colorectal adenocarcinoma, focussing on surgery, radiotherapy, systemic anticancer therapy and supportive care. She argues that evidence-based practice is essential to ensure perioperative nurses provide high quality care.

Radiology Nurse Staffing Audit

Editorial Committee members Catherine Freebairn and Annie Du Plessis, along with regular contributor Fiona Unac, provide this issue's Medical Imaging article. They review the recent audit on the impact of the increasing demand on radiology nursing resources at Hawke's Bay District Health Board, examining current radiology nurse staffing levels and healthy workplace recommendations.

A History of *The Dissector*

As promised, this issue brings the second part of the two-part series of articles documenting the history of *The Dissector*, compiled by Michael Esdaile from Advantage Publishing.

This time, PNC life members Kathryn Fraser (2005 - 2012) and Shona Matthews (2010 – current) provide enlightening reflections on their time as Editorial Committee members and Chief Editors. Michael also reflects on the changes to the Editorial Committee meetings over the many years that he has been attending.

Enrolled Nurses

Following requests for articles on the role of Enrolled Nurses in the perioperative environment, the editors of the Kai Tiaki Nursing New Zealand journal have kindly agreed to The Dissector republishing Anne Manchester's 2020 article about ENs at Burwood Hospital.

Contributions, please...

At the risk of repeating myself, if you enjoy reading our journal or have an opinion about any of our articles, we really do want to hear from you. Please also consider contributing — we are always looking for interesting articles.

If you are completing post-graduate study or have an interest in a particular topic, we'd love for you to share what you have learned with your peers. I'd like to acknowledge the Editorial Committee members, without whom we would not have had sufficient content to publish this issue.

Noho ora mai – *Bron Taylor, Chief Editor*

Due to the volume of cases, along with critical staffing shortages, non-urgent elective surgery in my district health board has been deferred.

The Dissector

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Touching Base

AUTHOR GUIDELINES

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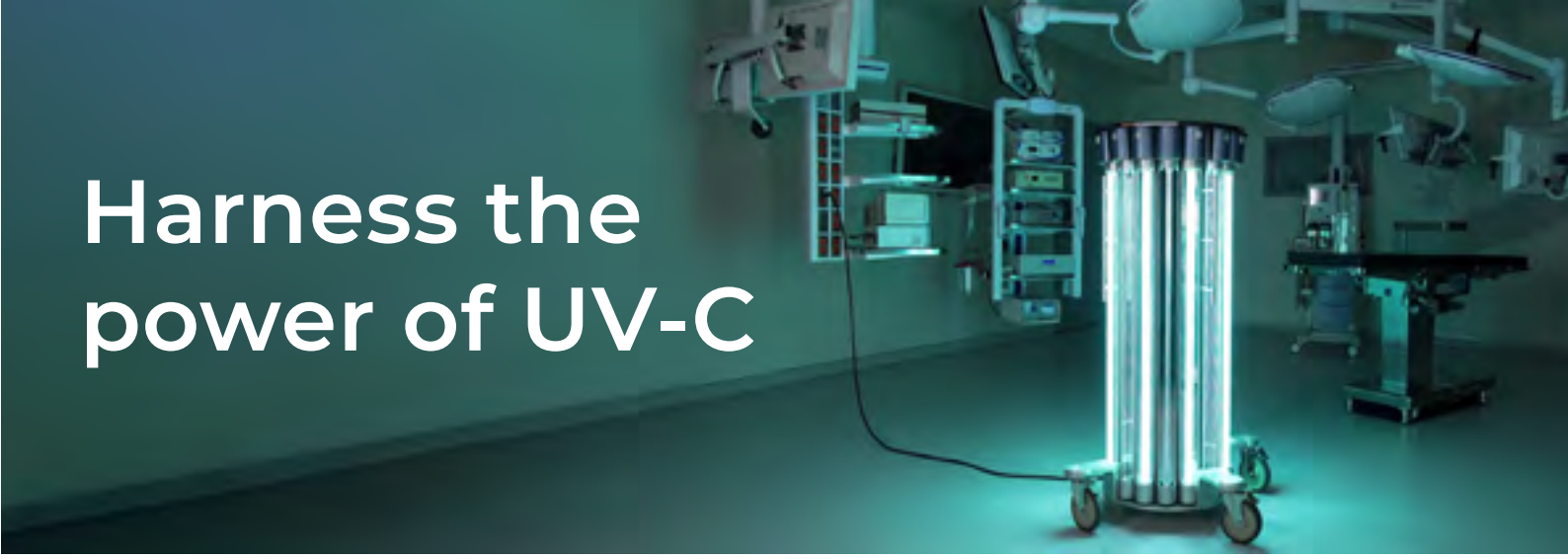

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Networking & professional development encouraged

COVID-19 has finally become endemic in New Zealand, something we have all been preparing for over the last two years. As we sit in the middle of the pandemic, I hope you are all keeping well and safe.

Despite COVID-19, Perioperative Nurses continue to work and practice as safely as possible. I am sincerely hopeful that we are coming to a stage where we can move forward with celebrating and promoting Perioperative Nursing knowledge and skills.

Part and parcel of this is sharing educational content with each other. The Perioperative Nurses College of the New Zealand Nurses Organisation (PNC,[NZNO]) remains dedicated to encouraging perioperative networking and supporting professional nursing development. The COVID-19 pandemic and the Government response has severely restricted activities for too long.

ONLINE CONTENT

Your National Committee is in the process of developing online content for our members; our first online educational platform will be held at the end of April. Details will be sent to all our members soon. I am reaching out to you all, to let you know that the PNC is committed to providing educational content for Perioperative Nurses. We are moving forward with our Face-to-Face Conference scheduled for September 29 to October 1 in Christchurch 2022.

CHALLENGES FOR NURSES

We as a National Committee are very aware of the limitations and challenges that nurses are currently experiencing in the workplace. However, we feel that nursing professional development is fundamental for the continued maintenance of nursing standards of care and nurses' well-being. As professionals, we all understand the value of coming together with our colleagues to learn new practices, share our experiences and encourage collegiality. In this COVID-19 age, this has never been more important for us as a profession.

Please go to this link to our conference programme in Christchurch https://perioperativeconference2022.co.nz/programme/ .

The conference team has been working hard to make this as successful as possible. Please support them and your colleagues to make it a wonderful, fulfilling experience for all.

Kindest wishes

— Juliet Asbery, Chair, Perioperative Nurses College of the New Zealand Nurses Organisation

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Nelson RN heads new hospital in Richmond

Nelson registered nurse Lynda Wakefield is the general manager of the newly opened $10 million private day surgery hospital in the Tasman district. She has 30 years' hospital experience, including leading Nelson Hospital's medical ward as clinical nurse manager.

Previously she was involved with orthopaedic, general surgical and obstetric nursing and has recently specialised in endoscopy, particularly screening, surveillance, and acute services.

The focus of the new day-surgery hospital was on prevention and people who had concerns would be able to book directly, she says.

"People worry about these things and they often do sit on the worry – literally."

The all-new Tasman Day Surgery in Richmond operates in partnership with Nelson Day Surgery and offers a state-of-the art modular operating theatre supplied by Opritech, part of Cubro.

The operating theatre features glass walls to improve hygiene and all switches are managed through a single control panel — with the ability for IT services to log in remotely to fix any problems.

Airflow is also managed to help with infection control, Opritech Project Manager Brett McLean says, adding: "there's much more behind the walls than in front of it... it's much more future-proof."

Whilst endoscopy is a specialist focus of Tasman Day Surgery, due to New Zealand's need to increase bowel cancer screening, it provides a full day hospital service.

Partnered with Opritech, Tasman Day Surgery has developed a leading surgical theatre system, fully equipped and accredited to New Zealand Standard 8164 enabling its specialists to provide for a wide range of medical and surgical services including:

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- General Surgery
- Urology

- Gynaecology
- Skin Surgery
- Ear Nose and Throat Surgery
- Orthopaedics
- Dental and Oral Surgery
- Bronchoscopy

Director Ben Castle says the new facility aims to make healthcare accessible to the community.

The adjoining Lower Queen Street Health, which houses a general practice, chemist, café and several specialist healthcare providers, also owns four neighbouring properties, with plans for a third development stage to extend from the new building to complete the 8000 square metre hub.

"This is a fast-growing region —the population is projected to grow by about 10,000 in the next 10 years —and it's also an increasingly aged community and as an aged person myself I appreciate the advantage of having good healthcare facilities," Castle says.

At this stage the vision for the third stage was for another operating theatre, with a five to 10-year time frame.

"We want as broad and deep a provision of health services for the community as possible and this is our contribution towards that."

Bravura's laser safety courses

Bravura Education has two laser safety courses coming up, one in May, the other in September.

Under the New Zealand standard, AS/NZS 4173:2018 Safe use of Lasers and Intense Light Sources in Healthcare standard, it is mandatory for everybody involved in laser procedures in operating suites, including non-healthcare facility employees, to have undergone laser safety education.

Bravura Education has been making compliance as easy as possible for numerous hospitals across New Zealand, including the Southern Cross network, Capital and Coast District Health Board, Hawke's Bay DHB, Southern DHB and many other smaller hospitals and DHBs.

Bravura offers three easy ways to access accredited education and meet the standard requirements:

1 "Done in a Day" live via Zoom. The next one is scheduled for Tuesday May 3 and another one planned for Tuesday September 6, or;
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The Dissector online

Perioperative Nurses undertaking research will interested to know that back issues of *The Dissector* are available online via the following international databases:

- Gale: Academic OneFile – 2011 onwards
- Gale: Nursing Resource Center – 2011 onwards
- Gale: Nursing and Allied Health Collection – 2011 onwards
- Gale: Health Reference Center Academic – 2011 onwards
- Ebsco: CINAHL Complete – 2012 onwards
- Proquest: Nursing and Allied Health – 2013 onwards

It is a measure of the journal's standing within the international Perioperative Nursing field that these international sites sought out *The Dissector* for content.

NZNO members can also access *The Dissector* electronically in the Academic OneFile database via the NZNO website.

Strong line-up for PNC Conference

Since the devastating earthquakes, Christchurch has picked itself up and rebuilt and is now getting ready to host the 2022 Perioperative Nurses Conference, which is running under the theme *From Strength to Strength*.

The conference will be held at St Margaret's College from Thursday, **September 29 - Saturday, October 1, 2022**.

Registrations are open and a comprehensive line-up of speakers has been organised by the 10-strong organising committee headed by Conference Convenor Vanessa Baccaltos from the Canterbury/West Coast-Nelson/Marlborough PNC Region.

The conference's Platinum Sponsor is REM Systems Paragon Care New Zealand.

REM Systems has been a regular supporter of the annual PNC Conference. It was the Platinum Sponsor in 2013, 2018 and 2019 and a Gold Sponsor in 2016 and 2017.

The Silver Sponsors for 2022 are Essity, Medtronic and Stryker.

Keynote speakers

There are seven Keynote speakers — Dr Lucy Hone, Anah Aikman, Sarah Eton, Dr Sally Langley, Mark Coates, Ibrahim Abdelhalim and Korrin Barrett.

Dr Hone, through knowledge gained from research and personal trauma and experiences, will present *Resilience: How can we promote it within ourselves and others?*

Creating cultural transformation; the way we lead matters, is the title of the presentation from Anah Aikman while Sarah Eton will present *Clinical handover from the operating theatre nurse to the post anaesthetic care unit nurse*.

Sarah is a senior nurse working in the post anaesthetic care unit (PACU) at Mercy Hospital, Dunedin. She is proactive in promoting a high standard of clinical practice in PACU and has a special interest in the transition in care of the post-surgical patient. After completing her master's thesis, which explored Perioperative Nurse handover in New Zealand, Sarah has engaged in handover quality improvement, applying the recommendations from her research. She is an active member of PNC, currently representing the Otago Section on National Committee.

Dr Sally Langley, a Christchurch-based plastic and reconstructive surgeon, is presenting *Pathway to becoming President of Royal Australasian College of Surgeons*.

Dr Langley has worked in both public and private surgery in Christchurch for more than 30 years. Her work has covered the whole spectrum of plastic surgery including craniofacial, cleft lip and palate, head and neck, paediatric, reconstructive including microsurgery, hand surgery, as well as skin cancer and breast surgery.

Percutaneous treatment of spinal metastatic disease 2021-The changing Paradigm is the paper that Mark Coates will present. Mark is head of MSK and Spinal radiology at Canterbury District HealthBoard (CDHB, Christchurch) and Pacific Radiology Group and responsible for the delivery of all aspects of Spinal Diagnosis and Intervention.

The status and rights of the Islamic rules in Perioperative care to the Muslim patient is the topic Ibrahim Abdelhalim will present. Ibrahim was born in Cairo and received his bachelor degree (Hons) in Agriculture Science and postgraduate Diploma in Islamic studies at the University of Al-Azhar. He emigrated to New Zealand in 1995 and now has New Zealand citizenship. He works as a community worker helping, leading and training a wide range of people of diverse cultures and backgrounds.

Living Life Unlimited – A story of survival and determination is the topic Korrin Barrett will explore. Korrin became a quad amputee from a septic infection after meningitis. This inspiring presenter is offering her account from hospital to life as an amputee. Her presentation is full of self-determination, technology and innovation in artificial limbs.

Korrin's presentation gives an in-depth look into her life post surviving sepsis and the amputation of all four limbs.

Concurrent Speakers

Dissector Editorial Committee member Rebecca Porton-Whitworth will present *Working in Chaos*, an account of the aftermath of the Christchurch Mosque massacre and dealing with a sudden large influx of wounded.

Rebecca's presentation addresses the mass casualty response, the flow of patients through the operating theatre, patient identification, forensic specimen collection, responses by different members of the perioperative team including sterile services and our operating theatre assistants. It also addresses communication and wellbeing.

Trans-catheter aortic valve implantation (TAVI): The keys to best practice outcomes is the topic that Clinical Nurse Specialist in cardiology at Christchurch Hospital Murray Hart will present. Optimal outcomes post-TAVI are based on selecting the best or most appropriate patients for the procedure.

Other presenters are:

Neroli Harrison-Katene*: C.I.P.R – critical incident peer response team. A welfare intervention for full theatre teams.*

Sarah Gibbon and Lorna Davies: *Canterbury's Supportive Perioperative Learning Environment*.

Christina Mason: *New graduate nurse operational capability within the first two years in the operating theatre as a tertiary hospital in New Zealand*.

Peter Ouden: *Ultrasound guided canulation as the new gold standard for IV access*.

Gretta Moffat: *Tunnelled central venous access devices*.

Gabrielle Alchin: *Components of job satisfaction for nurses, with a focus on Generation Y.*

Amelia Howard-Hill: *Nurse Practitioners in Perioperative care: One NPs journey and an analysis of their value*.

Jerald Ugdoracion: *Transitioning into the kiwi nursing workforce: Lived experiences of a Filipino Nurse*.

Du Plessis steps down

Hawkes Bay's Annie Du Plessis has decided to step down from the Editorial Committee of *The Dissector* for personal reasons.

Editor Bron Taylor received this advice as this issue was being laid out prior to going to the printer.

The Editorial Committee wishes Annie all the best, and hopes she is able to re-join the team in the future.

The new Southern Cross Central Lakes Hospital at Lake Hayes.

New Hospital in Queenstown region

A new independent hospital has opened in the Queenstown region. It is the Southern Cross Central Lakes Hospital, a 50-50 joint venture between Southern Cross Healthcare (SCHL) and Central Lakes Trust (CLT). The hospital includes three operating theatres and 13 inpatient beds, each with their own ensuite.

Southern District Health Board (SDHB) has contracted the hospital to undertake various elective surgical procedures, including a regular weekly operating list for acute orthopaedic procedures which will save patients the need to travel to Invercargill or Dunedin for treatment.

Chris Fleming, SDHB CEO, is pleased that theatre capacity for the region is being increased with the new Queenstown facility.

"This new hospital allows us to provide more convenient services to our Queenstown and Central Lakes population and relieves the existing pressure on our services in Invercargill and Dunedin," he said.

Southern Cross Healthcare Interim CEO Chris White acknowledged the achievement.

"Southern Cross identified Queenstown/Central Lakes as a high growth area that needed better access to surgical services at least a decade ago. Today, it is a reality. We are delighted to be working in close collaboration with the SDHB and the clinical staff at Lakes Hospital," Mr White said.

Southern Cross Central Lakes Hospital was officially opened in early December 2021. Surgery commenced on January 17 with one operating theatre and by March when in-patients were admitted, and the second theatre was brought on stream, the staff level had increased to more than 40.

"In the first month we treated more than 50 patients. This includes elective procedures for Southern DHB, who we are working closely with," says Chris White. "These public surgeries have included Achilles tendon repairs and minor fractures, as well as hernia repairs, excision of lumps and bumps, arthroscopies, removal of metal wear and hand procedures."

Dr John Wilson, an anaesthetist at the hospital and a member of the clinical advisory committee says "a fantastic team has been assembled at the hospital and everyone is pleased to be working together to provide better access to care for local patients.

"This new hospital is making a difference for patients as they can now get the surgery they need locally, particularly those who ordinarily may face delays in the public system due to more urgent cases," he added. "It is an especially great service for those patients who would otherwise be travelling several hours for procedures."

Kelly Pearce was one of the first patients to have surgery at the hospital for a wrist injury dating back to August 2020, and said it was much more convenient being treated at Southern Cross Central Lakes Hospital than it was travelling to Invercargill as she had been previously.

"Not being able to have surgery locally doesn't just affect the patient – it affects their families," she said. "I could not drive myself to Invercargill because of my wrist, so my husband had to drive me. He ended up taking days off work as my initial surgery was bumped twice.

"Obviously, it was much more convenient not having to travel so far for my final wrist surgery in January at the new Queenstown hospital. I also had very good and considerate care while I was there, including excellent after-care, which I really appreciated," Pearce concludes.

The new hospital is in a picturesque setting at Kawarau Park in the Lake Hayes Estate, just 15 kilometres from Queenstown, 46km to Cromwell, 48km to Kingston and 60km from Wanaka, thus offering the local community more convenient access to elective surgical services.

Over time, an increasing schedule of specialist surgery is planned, including orthopaedics, ophthalmology, urology, gynaecology, plastic, and general surgery. The hospital will not be providing accident and emergency services but will be funded by ACC to provide surgery for qualifying injured patients.

Wellington's PICC Inserters Workshop

Intravenous Nursing New Zealand (IVNNZ) hosted the country's second Peripherally Inserted Central Catheter (PICC) inserters workshop in Wellington last November with professionals from around the country attending.

These workshops provide an opportunity for experienced PICC inserters to network, upskill and troubleshoot together. One of the aims was to provide the platform to investigate what PICC insertion principles and practice can be standardised across the country.

It was heartening to see many PICC Inserters and corporate partners, 19 in total, from around New Zealand attend this workshop. Unfortunately there were a few no-shows, with colleagues from Auckland and Hamilton unable to attend due to the Government's COVID-19 travel restrictions.

The goal for the workshop was to discuss practice and build foundations for future guidelines and standards of practice for PICC insertions in New Zealand. The demand for PICC lines continually grows with more complicated treatments and patient acuity. Bed shortages throughout district health boards (DHBs) create demand for different solutions for home IV therapy.

The workshop facilitated PICC proceduralists viewpoints from different specialities and professional groups. Approaches to PICC insertion differed among these groups depending on speciality background, staffing, equipment and facility availability.

Medical imaging and IV therapy nurses, anaesthetists, and anaesthetic technicians provided insight into their different clinical settings for PICC insertion, ranging from angiography suites, theatres, recovery room cubicles, intensive care units, and wards. There was no standardised clinical setting, but all proceduralists strived for an optimal sterile environment. However some clinical settings lacked adequate support and staffing.

The PICC insertion process was questioned and thoroughly discussed with regard to scrubbing, draping, gloving, cleaning, chlorhexidine use, over the wire exchanges, vessel diameter measurement according to World Congress on Vascular Access (WOCOVA) recommendations, PICC Zone Insertion Method (ZIM), and Midline insertion options.

All PICC inserters used central line associated bacteraemia (CLAB) guidelines for sterility around insertion practice, some adding extra precautions, while others had modified the guideline drape size and cleansing area.

Most PICC inserters used the ZIM method for PICC line placement, with Canterbury DHB radiology department leading the way for New Zealand in PICC line insertion innovation. They offered alternative options, Chest Inserted Central Catheters (CICCs) and tunnelled PICCs should peripheral vein size be unsuitable for standard PICC line placement.

A draft document supporting standardisation of PICC insertion is being developed from the workshop, for group consensus and endorsement.

While some centres audited their service, others had developed excellent processes for feedback on infection rates by infection control teams. It was mainly Radiology departments familiar with wire exchanging procedures that provided over-the-wire exchanges for PICC lines up to 96 hours post insertion. Overall, there were similar practice methods among the PICC inserters, with variations that have evolved over time due to staff with a desire to progress practice.

The PICC workshop created an opportunity for proceduralists to discuss issues, new innovations and practice techniques in a relaxed informal environment.

A draft document supporting standardisation of PICC insertion is being developed from the workshop, for group consensus and endorsement. This document will hopefully be ready for presentation at the next Intravenous Nursing New Zealand (IVNNZ) Specialist Conference.

— Jenny Sexton & Catherine Freebairn, Radiology nurses, Hawkes Bay District Health Board

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Are we victims of

By Catherine Freebairn, Annie Du Plessis and Fiona Unaç

"We are victims of our own success. We have let technology lead the way, pushing ever faster to newer, faster, and more powerful systems, with nary a moment to rest, contemplate, and to reflect upon why, how, and for whom all this energy has been expended." — Donald A. Norman.

Abstract Hawke's Bay District Health Board (Hawkes Bay DHB) radiology nurses are experiencing demand on radiology nursing resources and require increases in nursing full time equivalent (FTE) to remain abreast of technology growth and demand for interventional procedures. An audit by Hawkes Bay DHB radiology nurses looks at the impact these demands have on nursing workload, in relation to the use of transit care nursing (TCN) services. This audit review will examine the disparity between current radiology nursing staff levels, and requirements for a healthy workplace environment.

Key Words Full time equivalents (FTE), radiology, Care Capacity Demand Management (CCDM), computerised tomography, Peripherally Inserted Central Catheter (PICC) line

Introduction

Providing a healthy workplace environment for nurses is important for job satisfaction, patient safety and quality care. Nurses have the right to a workplace that is safe for themselves and their patients.

In July 2018, New Zealand Nurses Organisation (NZNO), district health boards (DHBs) and the Ministry of Health signed an accord to provide sufficient nurses for hospitals to ensure both their own and their patient's safety (Safe Staffing and Care Capacity Demand Management: Effective Implementation Accord 2018).

The Ministry of Health required DHBs to fully implement a validated patient acuity system and plan workforce requirements in line with Care Capacity Demand Management (CCDM) programme methodology by 2021, as a tool for achieving healthy workplaces (Ministry of Health 2019).

Rapid growths in radiology technology, imaging, and minimally invasive interventional procedures have increased demand for nurses able to manage patient acuity ranging from stable to critically ill.

Hawkes Bay DHB radiology nurses are concerned 20 per cent increases in interventional radiology (IR) procedures are not resulting in 20 per cent increases in nursing FTE (Hawkes Bay DHB Radiology Department, 2021).

Glette, Aase, *and* Wiig (2017) suggest if significant disparity exists between patient procedures and radiology nursing staff numbers within the radiology department, it will affect staff safety and satisfaction, impacting on patient experience, safety, overall outcomes, and basic observational care.

Despite lacking a validated CCDM programme and formally determined FTE requirements, Hawkes Bay DHB radiology nurses are committed to providing optimal outcomes to achieve a safe healthy workplace environment for patients and staff.

Background

Nurses' involvement in radiology evolved through the 1970s, with development of computerised tomography (CT) and angiography technology. As demand for minimally invasive diagnostic and therapeutic interventional radiology procedures grew through the 1980s, radiology nursing developed as a professional nursing speciality, becoming a vital component of the IR team which includes interventional radiologists and medical radiation technologists (MRTs). Nursing has significant responsibilities managing patients, often with complex medical problems, advocating for patient safety and appropriate care.

IR procedures under conscious sedation increased, with radiology nursing using evidence-based practice and international guidelines to optimise safe clinical outcomes. Carley, Melrose, Rempel, Diehl-Jones, Schwarz (2021) state that providing minimally invasive IR procedures under local anaesthetic, with radiology nurses providing conscious sedation, is a more favourable alternative to traditional surgery with general anaesthesia and operating theatre time.

Challenging environment

Hawkes Bay DHB radiology nurses work in a challenging environment, struggling with safe staffing levels to meet service demands. Over the past 12 months, radiology department figures show a 20 per cent increase in IR procedures. In the absence of a validated CCDM programme, the nursing staff struggle to achieve safe staffing levels, as the current approach to FTE budgeting does not reflect current work demands.

our own success?

The radiology service has a strong focus on 'imaging volumes', which does not catch the complexities of nursing responsibilities (Unaç 2021). Presently, assessment of nursing care capacity is completed on a shift-by-shift basis, adjusting and/or postponing outpatient bookings to meet perceived safe staffing standards.

Radiology's complex, unpredictable work environment results in frequent interruptions to daily operational flow, affecting team performance and patient flow in other modalities. Often routine out-patient lists and IR procedures are delayed as radiology nurses attend to acute referrals, deteriorating patients, intravenous access (IV) problems, drug administrations, and adverse events.

Significant burden is being placed on nurses in radiology at Hawkes Bay DHB radiology with insufficient staff to meet demands for on-going education and further development of successful specialized radiology nurse-led Peripherally Inserted Central Catheter (PICC) line, pleural and ascites drain insertion, and DIVA (Difficult Intravenous Access) services. Pressure to work in line with best practice also diverts critical nurse resourcing away from responsibilities in other modalities, as Hawkes Bay DHB sedation guidelines demand appropriately qualified staff to be solely responsible for the administration of medications, monitoring and care of the patient (Hawke's Bay District Health Board, 2005).

The consequence of staffing shortages include procedural delays and reduced time for administration, facilitating and organising throughput of patient referrals, preparing patients for IR procedures or diagnostic scans, and collaborating with in-patient departments, radiology and multidisciplinary teams.

Audit

Recently, an audit, conducted by Hawkes Bay DHB radiology nurses concerned about safe staffing levels, examined the impact increasing IR procedures had on radiology nursing resources.

The audit was a continuous internal workflow study, focused on radiology nursing resourcing, interventional procedures and transit nursing availability. The data collected documented:

1 The time spent by radiology nurses stabilising patients post procedure;
2 The time spent by radiology nurses awaiting transit care nursing (TCN) and/or transporting patients post procedure back to the ward.

Results

One hundred and sixteen patients required registered nurse escort following IR procedures. Despite TCN assistance most of the time, estimated arrival time of TCN was too disruptive to radiology flow, with radiology nursing declining TCN 29 per cent of the time. Reasons for declining TNC were, a lack of space for holding patients waiting for TCN,

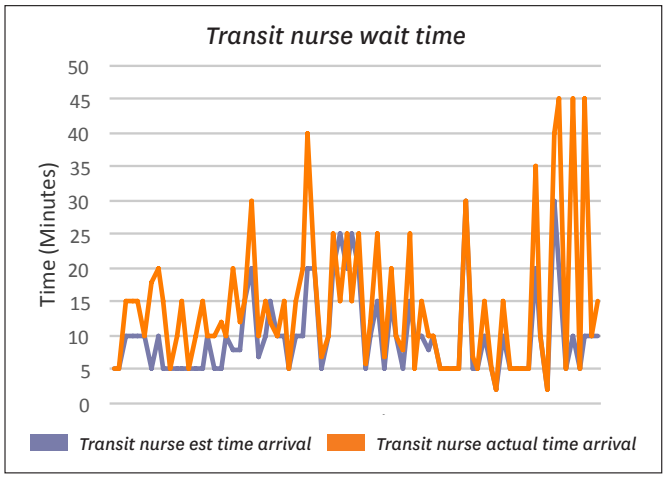

Table 1: Transit care nurse estimated wait time versus actual wait time.

The majority of patients were stable post procedure, while 39 per cent required immediate nursing care in the post-procedure phase. Mean nursing care time spent monitoring and stabilizing this patient group was 25 minutes.

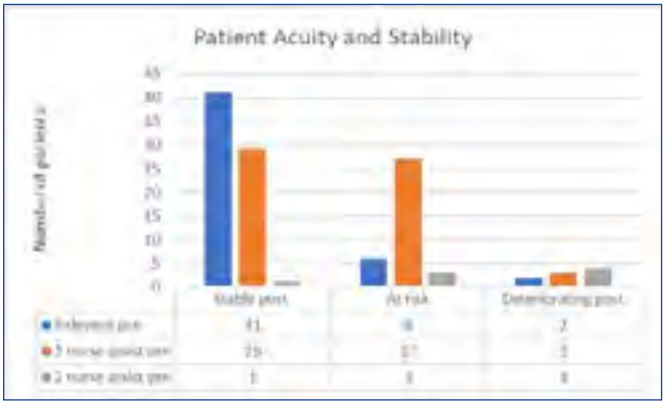

Table 2: Patient acuity pre-procedure and stability post-procedure.

The majority of patients requiring registered nurse escort were post procedure angiography patients. Unlike other modalities every angiography procedure required radiology nurse management. If there are not sufficient radiology nurses then the angio suite list is delayed, under-scheduled, or unsafely staffed.

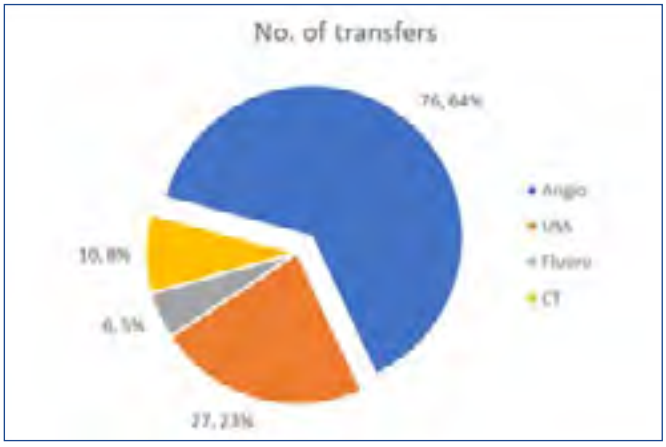

Figure 1: Number of nursing transfers by radiology modality.

and insufficient radiology nurses to manage patients post procedure and continue with IR list. There was a variance between estimated arrival pick-up time and actual pick-up time. On five occasions waiting time was at least 20 minutes.

Discussion

It became apparent early in the audit the scope of the audit was too narrow, representing only a small aspect of wider issues regarding safe radiology nursing levels and TCN service availability. TCN services transported two-thirds of radiology patients; the remaining third of patients were returned to the ward by radiology nurses. The audit only captured post procedure transfer requests by radiology nurses and did not include TCN drop off or full visit monitoring by TCN to the radiology department. The audit confirmed a gap in TCN services for post procedural radiology transfers, suggesting a significant unmet need across the organisation which may be unknown or under-reported.

Unlike the cardiac cath lab in Hawkes Bay, which operates with a four-team non-physician model in-line with best practice, IR radiology has been functioning on a three-team non-physician model, outside best practice.

Healthcare organisations have a responsibility to ensure radiology staff levels are adequate. In operating theatres, it would be unimaginable for circulating nurses to slow down operating lists because they are checking in, cannulating, managing and transporting the patient to the ward after the operation, as well as writing discharge summaries. This is the day-to-day reality for radiology nurses prioritising their workload knowing they are affecting team performance and patient flow (Unaç, 2021).

International guidelines recommend IR suites have dedicated non-physician health professionals for scrubbing, circulating, monitoring, and managing equipment (Society of Interventional Radiology 2016). Unlike the cardiac cath lab in Hawkes Bay, which operates with a four-team non-physician model in-line with best practice, IR radiology has been functioning on a three-team non-physician model, outside best practice.

Studies show understaffing clinical areas have an effect in various ways. When radiology nurses are expected to manage two vital roles; providing sedation and monitoring the patient as well as circulating during a procedure, patients are left vulnerable to a lack of surveillance and basic observational care, and possible medication errors. However, indirect consequences may include poor documentation, lack of obtaining regular vital signs as well as overall lack of nurse wellbeing due to an unacceptable workload (All Answers Ltd, 2018).

Audit Recommendations:

Following review of the data, the auditors have recommended the following:

1. A service review of radiology nursing FTE staffing measures in response to the increase in IR procedures, best practice and IR staffing standards. The review should include safe staffing to manage workload variances, backfill, after-hours and on-call resourcing;
2. A review of transit nursing beyond the radiology department exploring management of resources to increase capacity to include off-site transfers;
3. A feasibility study for introducing TrendCare and CCDM to radiology nursing as a validation tool for reporting safe staffing nursing levels;
4. The radiology nursing team will develop a nursing specific staffing guideline to inform safe nursing practice, with nursing sensitive indicators. The guideline will help inform the service review of radiology nursing FTE.

Conclusion

Inadequate nursing FTE to meet the demands of a steadily increasing IR workload at Hawkes Bay DHB has made the radiology nursing team 'victims of their own success', which is discordant with a healthy work environment. When resources are diverted to meet other radiology department demands, they risk patient safety and functioning outside best practice guidelines. The audit identified a disparity between TCN services and post procedure transfers, recommending a radiology nursing service review to examine further workload pressures and current resourcing.

Development of a validated acuity tool for Hawkes Bay DHB radiology nurses will be crucial for identifying care capacity pressures, to ensure demand increases for IR procedures and nurse-led services can be managed working within best practice guidelines. An increase in radiology nursing FTE will lift productivity, reduce postponements and delays and improve the management and coordination of patient care throughout the radiology department and beyond. Hawkes Bay DHB radiology nurses are integral to a safe and sustainable IR service and committed to providing patient-centered care and a healthy work environment.

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Support for Enrolled Nur

By Anne Manchester

Karen Sword has worked as an enrolled nurse (EN) at Burwood Hospital in Christchurch for 39 years. It's where she trained in 1982 and from where she will most likely retire.

For her first six years she worked in a variety of areas, including geriatric wards, orthopaedic rehabilitation and the plastic surgery unit, where she worked with burns patients helping with dressings and saline baths.

In 1988, she began working in the theatre suite, which was open 24 hours a day, seven days a week, with orthopaedic and plastic surgery included in their responsibilities. Sword enjoyed the acute plastics work she became involved with, including helping with the re-implantation of limbs or fingers.

"Nurses are prone to injury in this environment too, especially back, neck and shoulder injury. I did get a back injury when I stared in OR back in 1988 and it still niggles me a bit."

"In 1995, the plastic surgery unit was moved to Christchurch Hospital and Burwood took over orthopaedic elective surgery Monday to Friday, 7.30am to 9.30pm, with no night shifts or weekend work involved. This suited me really, as by then I had had my first child," Sword recalls.

Sword enjoys working in the operating room (OR) and believes there is a lot of scope for ENs to increase their skills. She is one of seven ENs working alongside a team of about 45 RNs. These numbers ensure a good skill mix, with either one EN and two RNs in a team, or two ENs and one RN. Either way, an RN is always there to perform an instrument and swab count, and to provide the EN with the necessary direction and supervision.

"ENs work very similarly to the RNs in OR, but they must ensure they keep within their scope," Karen says. "Some see OR as a rather scary place, but this is because most ENs haven't considered this an area in which to work. A number of EN students doing the 18-month programme at the Ara Institute of Technology have come here for their practical experience. And several of these students have secured EN positions here after they have graduated.

"Two ENs on the Canterbury regional committee — Marie Hurst and Michelle Prattley — present awards and discuss EN work at ARA. ENs are making great progress in all sorts of environments now, from outpatients to eye surgery in the community and mental health, to name a few."

Sword appreciates the support Burwood Hospital has always given ENs — the fact the EN school was once based at the hospital probably contributes to that support. However, it is not all plain sailing in OR, as managing the dynamics within the teams can have its challenges.

Sword works seven days a fortnight, a pattern she has maintained since having children. It also helps ensure she keeps a good balance between her work in OR with her interests outside work.

"OR work is often quite heavy and stressful. There are heavy instrument crates to lift, you could be standing for many hours on a concrete floor and the nature of some of the surgeries can be very intense. One operation might be expected to take 30 minutes but could end up taking two or three hours if there are complications. This means meal and toilet breaks are sometimes difficult to manage. Nurses are prone to injury in this environment too, especially back, neck and shoulder injury. I did get a back injury when I started in OR in 1988 and still get troubled by it sometimes."

Work in OR became very quiet during the NZ Government's March-April 2020 COVID-19 lockdown, with only a few urgent spinal surgeries performed. The nurses were deployed to the wards, in rest homes, or on the ward set aside to care for patients with COVID-19 from Rosewood Rest Home.

Sword had annual leave already booked, then helped out in older person's health and staffing the hospital's main entrance. This involved screening people as they arrived for outpatients' appointments and asking their support people to wait in their cars.

"It was hard having to ask people not to provide the support they would normally offer their friends and family."

Work was picking up again by mid-May 2020 however. The Government's Level-2 restrictions still meant having to be careful in the admitting unit and avoiding having too many people waiting and ensuring social distancing was maintained.

Professional development

Sword is now on the highest level in her professional development — "accomplished". In 2009 she completed a transition programme to bring her qualification up to Level 5, in line with the new 18-month programme. Reaching this level means she had to complete a competency portfolio every three years, with an interim report, signed off by a senior nurse. Over the years the portfolio requirements have been refined, she says, with an emphasis on quality, not quantity.

Case studies, conference presentations she has either given or attended, and any quality changes she might have initiated are included, along with her role as the health and safety rep for the OR suite.

"Attending the annual EN conferences is unfortunately getting more difficult to get funding for," Sword said.

"Medical (supply) companies used to offer funding as well, but that is not happening so much either these days. Most people can't afford to self-fund, especially if the conference is being held outside their own location."

As well as being a member of the Canterbury-West Coast Enrolled Nurse

ses at Burwood Hospital

Section of the New Zealand Nurses Organisation and on the 2019 EN conference committee, Sword is a member of NZNO's Periopera tive Nurses College and served on the initial committee to organize the 2020 PNC Conference in Christchurch, which was eventually postponed. Outside of work, she is a qualified aroma touch therapist and Bowen therapist, offering soft tissue manipulation. She runs a home-based clinic and aims to expand her skills in both these areas in the future.

At Burwood Hospital she helps facilitate, with one other nurse or clinical psychologist, a weekly guided meditation programme for nurses called Sankalpa.

"Our executive director of nursing and midwifery Mary Gordon heard about this workplace wellness programme from two staff members — Jenny Gardiner and Stu Bigwood — who had attended a Sankala session in Australia. Mary was supportive and decided to bring the programme to Canterbury. It is still in its infancy here, though mental health and emergency department nurses are using it and noting its benefits. I would like to see more managers supporting this programme."

Looking back on her EN career, Sword regrets she did not do her RN training.

"In 1995/96, a number of my friends undertook a bridging course and became RNs. But at the time, not earning a salary for three years was not an option for me. In hindsight, it probably would have been worth the effort."

While Karen believes ENs offer great nursing care, she would like ENs who later decide to take their nursing career a step further to be able to cross-credit some of their experience towards a BN qualification.

Karen Sword (right) scrubbed for surgery assists RN Emily Angus as they complete the equipment and swab count.

"The bulk of the EN workforce is due to retire in the next 10-15 years. We need to ensure that the profession of enrolled nursing in New Zealand is well embedded in the healthcare system.

"More people would train as ENs if there was a career pathway from EN to BN available, enabling ENs to complete a shorter BN programme, recognizing their previous education, qualification and clinical experience as an EN in the Health Work Force."

AKNOWLEDGEMENT

This article was originally published in the June 2020 issue (Vol. 26, No. 5) of *Kai Tiaki Nursing New Zealand*, the official monthly journal of the New Zealand Nurses Organisation. We thank the editors of *Kai Tiaki New Zealand* for granting *The Dissector* re-print rights. We also thank Karen Sword for bringing it up to date prior to publication in *The Dissector*.

About the author: *Anne Manchester was born in Hamilton in 1950, later attending Wellington Girls' College and Victoria University where she took part in university revues with Roger Hall and, despite her feminist beliefs, found herself crowned Miss Victoria University of Wellington. She has worked as a film editor, spent some time in England then returned to Eastborne where she has lived ever since. She has an unstinting passion for theatre, and from 1995 to 2020 was co-editor of* Kai Tiaki Nursing New Zealand. *She has written three books:* Toughen Up, Andrew! *about a charismatic Pekinese dog, who arrived in New Zealand from Palm Springs, and the sequel* Andrew Down Under. *Anne has also written a memoir called* Memory Stick.

The COVID Vaccination Challenge

Tamaki Makaurau 2021

By Devika Cook, RN/BN, Dip. Management

Abstract In 2021, the author was seconded from her role as a Charge Nurse in PACU at Auckland DHB and charged with the responsibility of being Clinical Lead of the COVID-19 CBD Vaccination Centre in Tamaki Makaurau (Auckland). This article is a reflection of her experience and the challenges involved. Devika initially commenced vaccinating at the Highbrook Centre before moving to the central business district (CBD) of Auckland.

Keywords COVID-19, Pfizer, Vaccination, Highbrook Centre, CBD.

Introduction

Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) is the virus that causes coronavirus disease of 2019, commonly known as COVID-19 (World Health Organisation, n.d.).

The first case of COVID-19 was confirmed in New Zealand on February 28, 2020 (Jeffries, et al, 2020) and the World Health Organization (WHO) declared a pandemic on March 11, 2020 (New Zealand Ministry of Health, n.d.).

The SARS-CoV-2 virus has since undergone genetic mutations, some of which can spread more easily than the original variant. Current variants of concern are: Alpha, Beta, Gamma, Delta and most recently Omicron (NZMoH, n.d.). Of concern, Omicron is much more transmissible but seems to be less harmful, especially in those who are fully vaccinated (NZMoH, 2021).

Omicron seems to be able to penetrate the upper respiratory tract linings but is much less likely to attack the lungs and the clinical symptoms are more limited to an upper respiratory tract infection-like episode.

Vaccination is very effective against serious disease and hospitalisation and those who are admitted have much shorter stays, some less than one day. However, the high numbers of those infected in the community at the peak mean that there may still be significant numbers presenting to healthcare facilities (NZMOH, 2021).

At the time of writing, the Pfizer Cominarty Vaccine was the only vaccine being administered in New Zealand. Full vaccination requires two doses at least three weeks apart. Studies show the effectiveness of two doses of the Pfizer vaccine against symptomatic illness is 64-95 per cent and about 90–96 per cent against hospitalisation or severe disease due to Delta infection (NZMoH, 2021a). A third booster dose of Pfizer Cominarty Vaccine is now being administered to provide added protections, not only against the effects of Omicron, but also against the other variants.

Background

COVID-19 vaccines were developed and trialled at an unprecedented rate, becoming available in early 2021. Indeed, the United Kingdom began distributing the AstraZeneca/Oxford vaccine as early as January 4, 2021 (*American Journal of Managed Care*, 2021). Researchers were able to use their knowledge of other coronaviruses and vaccine development to rapidly develop vaccines and clinical trials were able to recruit large numbers of volunteers faster than usual due to worldwide interest and concern about COVID-19.

Additionally, some clinical trials were able to be done at the same time instead of one after the other, meaning they could determine whether the vaccine was effective in a short amount of time (NZMoH, 2022). Available evidence indicates that eligible COVID-19 vaccines have an acceptable short-term safety profile (Wu, Dudley, Chen,. et al. 2021).

Pfizer-BioNTech mRNA

The New Zealand Ministry of Health (NZMoH) chose to implement a vaccination programme using the Pfizer-BioNTech (Comirnaty) vaccine, a messenger ribonucleic acid (mRNA) vaccine that contains the genetic code for the 'spike protein' of the SARS-CoV-2 virus.

Spike proteins are the little projections on the surface of the virus (NZMoH, 2021b).

Coronavirus are a type of virus that can affect humans and animals. They get the name because their surfaces are covered in crown-like spikes, somewhat resembling a crown. Corona means crown. Although the Pfizer vaccine was rolled out relatively quickly, it was held to the same standards and requirements as all vaccines and received provisional approval (with conditions) for use in New Zealand by Medsafe on February 2, 2021 (NZMoH, 2021c). Two doses of the Pfizer vaccine are required.

In the early clinical trials, research showed that following the first dose, antibody levels were much lower compared to those seen after

natural infection with COVID-19. However, after the second dose, the antibody levels were higher than those seen after the first dose, and higher than those seen after natural infection (NZMoH, 2021b).

'Pop-up' centres

The Auckland Central Business District (CBD) provided the first 'pop-up' vaccination centre at The Crowne Plaza Hotel in February 2021. The target group in the initial phase of the campaign was to vaccinate front-line workers. This cohort of front-line workers were employed at the Airport, Border control, Ports and Managed Isolation Facility (MIF)/ Managed Isolation Quarantine (MIQ) facilities.

The Highbrook Centre in East Auckland was the first pop-up Super Vaccinating Centre (SVC). The centre was established in early March 2021, with short notice of less than a week due to the Pfizer vaccine arriving in New Zealand two weeks earlier than expected. Initially Highbrook was set-up to vaccinate the whanau/family members of frontline workers who has already been vaccinated.

Highbrook Centre

The Highbrook Centre was a medical/dental centre re-purposed from what it had been originally intended for. The Counties Manukau District Health Board (CMDHB) secured the lease, furnished the building and created a functional vaccination centre.

To become fully operational, a multi-district health board (DHB) approach was required to provide a vaccinating workforce. Health workers who were already signed off to vaccinate were pooled from across the greater Auckland region, including staff from other DHBs and a network of Public Health nurses. All vaccinations in the initial stage were by appointment only.

At the Highbrook Centre, where the author was initially based, there were several phases and stations throughout the vaccination process.

Maori Wardens were established to control the carpark, meet, greet and ensure the consumer stayed in their vehicle until being called into the facility. This provided social distancing and prevented over-crowding

in the facility. Generally, only the consumer entered the facility unless special assistance or translating services were required.

Security Staff were visible and stationed around the centre periphery, patrolling the carpark including the front entrance, with one security officer at the exit door. Only consumers to be vaccinated were allowed inside.

Whanau Ora were stationed both outside and inside the facility. Their role was to check on the wellbeing of clients waiting, and to screen them for COVID-like symptoms. They provided assistance for consumers requiring wheelchairs, along with general help and support to guide the consumer through the stations. They ensured mandatory hand hygiene and mask wearing was adhered to before entering the facility.

Administration Area where the consumer's vaccination was entered into the National Covid Immunisation Register (CIR). During this process, the consumer was either scheduled a follow-up appointment for the second dose or encouraged to book online.

Health Check/Consent/Vaccination is managed by Registered Nurses (RNs) who complete a health check to ensure the consumer is physically fit to be vaccinated and has no other contraindications to receiving the vaccine.

Initially, in the early phase, a written consent form was required. Now however, only a verbal consent is taken unless the consumer is without a NHI, or required to provide their vaccine status to their employer. Additional written material is provided about the vaccine, frequently asked questions and the privacy statement.

Following administration of the vaccine, the vaccinator enters vaccine details, batch number, expiry dates, needle type/size and the site of vaccination into the database. Any subsequent reaction(s) are added if they occur whilst in the observation area.

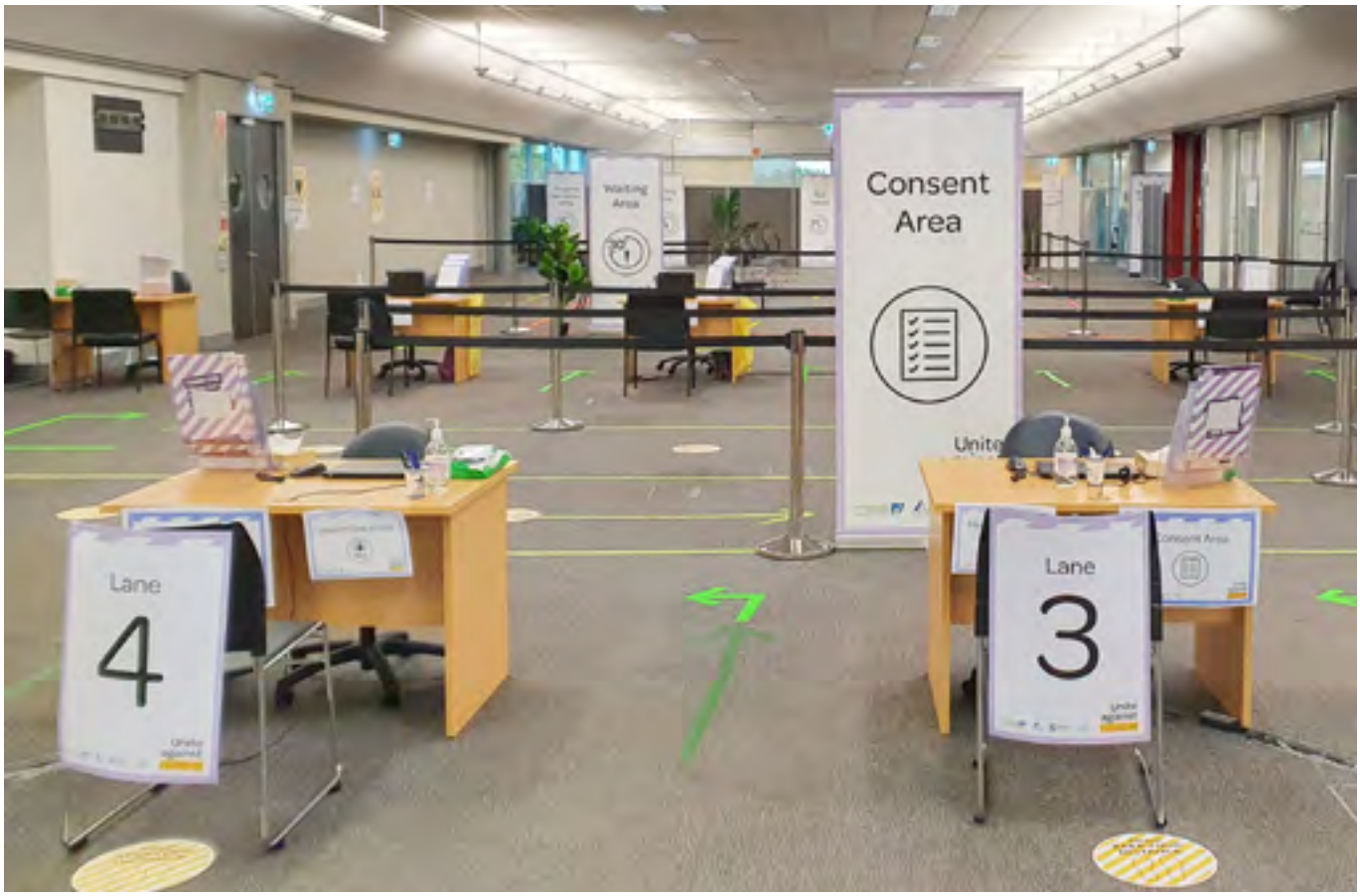
Generally, the vaccine is very well tolerated. Some of the most common reactions are dizziness, nausea or light-headedness, sweating and feeling anxious. All vaccination centres have a First Aid room equipped with an Automated External Defibrillator (AED) and monitoring equipment should the need arise. In case of further medical assistance, the ambulance service is called. There has been the occasional consumer who has required further medical assistance at a hospital or medical centre.

Observation Area: once vaccinated the consumer moves onto the observation area to be monitored by RN's. Initially the consumer waited a minimum of 20 minutes, which has been reduced to 15 minutes unless the consumer has medical reasons to observe them for longer, such as previous reactions or allergies to other medications. Once the consumer is cleared, they are then allowed to leave the premises. The exit door has a security guard assigned to monitor clients have been cleared to leave and no-one enters from the outside.

Cold- Chain (Vaccination Prep Station): this area is managed by RNs or Pharmacists with experience in cold-chain management. Cold-chain refers to a low temperature-controlled supply chain. COVID vaccine preparation is a complex process and requires extensive logistical planning and management. The vaccine is a precious commodity and needs to be handled with care due to its fragility. It must be kept frozen, defrosted, reconstituted and used within six hours of reconstitution.

The freezers are located off-site and there is a separate team who handle the frozen commodity logistics. The vaccines are defrosted at the preparation centre and then transported via designated couriers to the site in a specialised chilly bin known as a "Credo Bin".

The vaccine is transported with an internal data logger that detects the internal temperature of the bin. On arrival of the vaccine to the Highbrook Centre, the person receiving the delivery needs to ensure the logger is flashing green, indicating the vaccine was transported within the correct temperature range. The loggers are then returned to the central site and the data is downloaded to ensure there has been no temperature breach. Once defrosted, the vials have a refrigerated life of four weeks.



Due to stability reasons, the vaccine cannot be reconstituted too far in advance. There are usually six doses per vial and wastage is avoided to ensure all doses are administered. Careful planning occurs later in the day to avoid the risk of wasting any doses. It is a balancing act as inevitably there are "no-shows" or consumers are unwell and cannot be vaccinated. Sometimes there are additional walk-ins who are not turned away and are offered the vaccine. Everyone and anyone currently in New Zealand is entitled to be vaccinated, regardless of their immigration status.

Results

As the vaccination programme rolled out to the next age groups eligible for the vaccine, more and more vaccination centres popped-up across the city. Along with more SVCs, smaller local vaccination centres (LVCs) pop-up services occurred at maraes, health centres and pharmacies. The CBD centre was initially meant to close at the end of March 2021, but was reinstated again after Easter due to its ideal location to meet the needs of central Auckland.

The second population group phase was focused on aged care, those aged over 65 years, those with chronic health conditions, and Maori/ Pasifika over 55 years. Centres were fully booked with limited capacity for walk-in consumers not fitting the current group criteria. Most centres were open seven days per week, including public holidays and some open late until 7.00pm.

Just prior to going into the national Level 4 lockdown in August 2021, the first "Max Vax" event ran for three days at The Vodafone Events Centre, targeting Manukau Institute of Technology students and their whanau. More than 16,000 doses were administered over the course of the three days.

Once the first Delta positive case was discovered in Auckland in mid-August, the challenge was to safely increase the programme's effectiveness to mass vaccinate the remaining tiers as quickly and efficiently as possible. Innovation was required and "Mass Vax" sites popped up all over Auckland city.

The Park and Fly service at Auckland Airport was the first drive-through where up to 15,000 vaccinations daily became the norm. The Trust Arena in Henderson initially was a drive-through until a freak storm decimated their tents. But with quick thinking and the ingenuity from the Waipareira Trust, the service moved indoors and up to 1700 doses initially were administered daily. Further drive-through centres, Maraes, GP practices and pharmacies popped up across the city, including mobile services using buses and vans. Lockdown resulted in surges of consumers coming through for their first vaccination with many of them having their second dose by mid-October.

Coinciding with the Level 4 lockdown, the Ministry of Health announced vaccinations were safe for age groups 12 years and older. This extension of population groups saw an influx of consumers as many teenagers accompanied their parents for vaccination. Further extension of vaccination age groups to children less than 12 years of age in the Northern Hemisphere is being closely monitored by the MOH.

The October 1, 2021 'Super Saturday' event had an initial target of administering 100,000 vaccine doses. This target, reached by mid-afternoon of the campaign, ended up administering 130,002, of both first and second vaccine doses.

Most vaccination centres in the city closed in late December 2021. In January 2022, a Drive-Through model became the preferred model for vaccinating to allow air flow, "bubbles in their own vehicles" and promote social distancing.

Conclusion

This has been an extraordinary almost eight months of my career. I initially trained as a Provisional Vaccinator in September 2020 to be able to assist with the 'flu' vaccinations in the hospital setting. Part of the training included the COVID vaccine module for 'when it came'. It came much sooner than anticipated and never let-up! I've worked regular days, mass vax days, been on the buses and enjoyed every minute of it.

It has been an amazing roller coaster at times. I feel very honored and privileged to have been part of taking this to the Team of Five Million. I have worked with amazingly dedicated people all striving for a common cause. There have been great stories to share and some incredibly interesting people who make up our great country.

At the time of writing, we were well on our way to achieving the 90 per cent target. The Highbrook Centre has subsequently closed. It managed up to 1000 vaccines per day and in a stream-lined efficient service. Initially there were issues with queues, crowd control and traffic jams on the road, but with careful management and re-assessment it was an efficient, effective service.

Kia Kaha – Aotearoa!

About the author: *Devika Cook RN/BN, Dip. Management has been the charge nurse of the Adult and Acute PACU, Auckland City Hospital since October 2005. She has previous experience as a Staff Nurse and Charge Nurse in Adult Intensive Care. She joined The Dissector Editorial Committee in 2018. Devika has facilitated and presented at professional conferences a number of times. She has a strong interest in succession planning and developing staff to their full potential. Her particular strength is in HR and work-force development and Employment Relations. Devika believes in maintaining a strong clinical focus and is proactive, ensuring staff enhance their skills and maintain their professional development. She is currently on secondment to the COVID–19 Vaccination Campaign.*

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Perioperative Management of Colorectal Adenocarcinoma

By Amanda Lindsay

Abstract Using evidence to inform best practice standards is essential to provide high quality care for patients. This article is a review of the literature on perioperative management of patients undergoing surgery for adenocarcinoma of the bowel.

Keywords: Adenocarcinoma, bowel cancer, evidence-based practice (EPB), oncological surgery, pain management, chronic illness

Introduction

Adenocarcinoma is a form of cancer found in multiple body systems. In New Zealand, adenocarcinoma accounts for more than 90 per cent of colorectal cancers (Munro et al., 2018).

The disease presents as complex, chronic, and with changing issues (Pizzoli et al., 2019; Plage & Kirby, 2021). Patients may journey through the perioperative environment for both primary resection and metastatic management. Nurses need the knowledge to assess and manage these issues in the perioperative environment. A crucial part of being a registered nurse is learning to increase personal knowledge, as well as others' knowledge in current best practice for patients with this condition. One important tool to improve knowledge and care is reviewing the literature. This should be followed by critically analysing the literature to provide current best practice or evidence-based practice (EBP) in the clinical environment (Horntvedt et al., 2018).

This article focuses on surgery, radiotherapy, systemic anticancer therapy, and supportive care including palliative care (Young et al., 2020). It is important to note this is a small section within the overall framework of the patient's journey.

Evidence Based Practice

EBP has been utilised in nursing practice since the time of Florence Nightingale, even though the term had yet to be defined (Mackey & Bassendowski, 2017). Benner (1982) has been acknowledged as one of the first in the nursing community to produce a theory that advances nurses' clinical skills through evidence-based research.

EBP as described by Buckley et al. (2020) is using problem-solving to guide clinical decisions, evaluating the evidence or research, using the research to form clinical recommendations, implementing the recommendations into practice and evaluating the outcome. Chan et al. (2020) and Nelson (2014) reinforce this concept of EBP. Nelson (2014) explains the use of the term best practice as a surrogate/related term dependent on the literature, clarifying that the terms evidence-based and best practice can be used to describe the methodology utilised to design guidelines and protocols.

The relevance of EBP is extensively documented. However, to state it simply, patients receive the best care specific to them and their health concern. Frye and Attawet (2018) identified four thematic barriers within their study: requiring time, requiring management and organisational support, requiring education opportunities, and the challenge of access. Nurses need to define the barriers they face regarding implementing EBP, tools such as mentorship programmes and guidelines have been recommended within the literature to address them (Chan et al., 2020; Chrisman et al., 2014).

Literature Review

A review of the literature on adenocarcinoma was conducted. Databases and online libraries ClinicalKey, PubMed, ProQuest, Google Scholar, and others were utilised as the main resource for research. Search words and phrases were: 'adenocarcinoma management', 'cancer chronicity', 'bowel cancer', 'nursing management', 'best practice', 'evidence-based practice', 'perioperative bowel cancer', 'perioperative nursing assessment', 'adenocarcinoma pathophysiology' and other synonyms were used.

The search was limited to material published from 2017 to current. However, older relevant literature was also sourced and referenced. Peer-reviewed, full articles were the main resource, alongside information from medical textbooks.

Adenocarcinoma – Acute and Chronic Illness

Adenocarcinoma presents as both an acute and chronic illness. People with advanced stages are living longer due to earlier detection and advancing knowledge in cancer management (Plage & Kirby, 2021).

The development of modern treatments which extend this disease to one that can be treated over long periods has meant that cancer has transitioned from an acute and fatal disease to a chronic disease (Pizzoli et al., 2019; Schmidt, 2016; Ward et al., 2014; World Health Organisation (WHO), 2021).

Similar to other chronic diseases, there can be phases where acute interventions are required (Pizzoli et al., 2019). The cancer care continuum is a framework of the journey an oncological patient follows.

Chronic Pain Management

Chronic pain, defined as pain that lasts three months or longer and leads to functional disability and/or emotional distress (Jackman, 2019; Nicholas et al., 2019) should be considered in the assessment and management of the perioperative patient with adenocarcinoma.

Chronic pain results in substantial suffering and negatively impacts on the patient's social and psychological function (Miclescu, 2019). The World Health Organisation (WHO) reports that more than 5.5 million people worldwide are provided insufficient treatment for cancer-related pain (Zajączkowska et al., 2018) reducing the quality of life of many cancer sufferers.

Neuroinflammation occurs when the central and peripheral nervous systems respond to noxious stimuli. This response alters vascular permeability, leukocytes, and inflammatory mediators are released. This can lead to central sensitisation, and therefore chronic pain. Use of opiods

for pain management may result in opioid-induced hyperalgesia (Miclescu, 2019; Santoni et al., 2021). It is important to understand the patient's experience of pain and their history of pain medications to establish a baseline and avoid withdrawal symptoms (Farrell & McConaghy, 2012; Jackman 2019).

Patients who have pre-existing chronic pain issues and potentially long-term opioid use are at risk of poorly managed post-operative pain…

Farrell & McConaghy (2012) and Jackman (2019) agree that focus should be on the preoperative assessment stage, identifying and preparing the patient for post-operative pain. Patients should be educated in the methods of analgesia that will be used within the perioperative environment, ensuring the pain management plan includes multimodal analgesia techniques (Jackman, 2019; Miclescu, 2019). Patients who have pre-existing chronic pain issues and potentially long-term opioid use are at risk of poorly managed post-operative pain (Cozowicz et al., 2017; Jackman, 2019). This results in longer hospitalisations and potentially the need for pain service interventions (Cozowicz et al., 2017; Jackman, 2019).

Intra-operatively, pain management can be provided by the anaesthetic team and surgical team. Anaesthetics can provide intravenous pain management, for example, fentanyl or ketamine infusions (Jackman, 2019).

Kutay Yazici et al., (2021) argue that intra-operative lidocaine infusions are the best course for pain management. The surgical team can administer localised pain relief via wound catheters or local anaesthetic (Jackman 2019). Post-operatively, pain assessment is key. Validated assessment tools such as the Numeric Rating Scale, verbal scales, the Pain Thermometer, and the Faces Scale should be utilised (Chou et al., 2016).

Pain management using multimodal analgesics and non-pharmaceutical methods is considered current EBP (Jackman, 2019; Miclescu, 2019).

Studies completed on adherence to the enhanced recovery guideline used in colorectal general surgical specialty found that most areas are being sufficiently achieved. However, one that was not is pain management (Joshi & Kehlet, 2019). This is something to be seriously considered when caring for colorectal adenocarcinoma patients.

Chronic immunosuppression

Patients with colorectal adenocarcinoma may have chronic immunosuppression. Immunosuppression can be influenced by multiple factors. It may be due to the rigorous treatment programmes such as chemoradiotherapy (Matzner et al, 2020; van der Valk et al., 2020) used to help reduce margins preoperatively (Kondo et al., 2018). Long term use of certain medication types such as opioids has been argued to have a negative effect on the immune system by decreasing natural killer (NK) cells. However, this is not an argument for avoiding opioids for the treatment of a patient's cancer pain (Longhini, et al., 2020; Zajączkowska, et al., 2018).

Immunosuppression may result from the tumour micro-environment itself. The tumour's extrinsic factors resist the body's natural anti-tumour response (Saleh & Elkord, 2020). These reduce the body's defence mechanisms, including humoral response, NK cell function, and cellular immunity (Ben-Eliyahu, 2020; Kim, 2018; Zajączkowska, et al., 2018).

Surgery-induced immunosuppression occurs due to trauma when alarmins alert the immune system to tissue damage. This activates both the innate and adaptive immune responses, releasing growth factors, cytokines, stress hormones, and clotting factors. This stress response can enhance tumour metastasis as the body releases angiogenic factors, suppress NK cells, and cell-mediated immunity. This peaks at three days post-operatively (Bakos et al., 2018; Kim, 2108).

Perioperative assessment and management of immunosuppression is multi-modal. Assessment of the patient's immune status can be completed via a blood test. According to Matzner et al. (2020), perioperative anti-metastatic interventions including immunotherapies and novel therapies should be utilised. Antimicrobial and *Pneumocystis Jirovecii* prophylaxis should be considered prior to surgery to support the patient's immune system as four per cent of patients who receive chemotherapy develop pneumonia from this organism (Taplitz et al., 2018).

Longhini et al. (2020) and Kim (2018) state the importance of considering which anaesthetic agents are administered. Up to 80 per cent of oncological patients receive an anaesthetic during their journey. Different agents have different effects on immunomodulation. Studies suggest that some intravenous (IV) agents such as propofol may be less suppressive of the patient's immunity than volatile anaesthetic agents and opioids. However, they found that IV ketamine and thiopental both reduce the activity of NK cells and each has other consequences to the immune system (Ben-Eliyahu, 2020; Kim, 2018; Longhini, et al., 2020). Longhini, et al. (2020) does separate haloflurane as a volatile not contraindicated in oncological surgery.

Surgically, the use of local anaesthetic, specifically lidocaine, is noted as increasing NK cell activity and therefore is recommended for use within the oncological immunosuppressed patient (Chamaraux-Tran & Piegeler, 2017; Dockrell & Buggy, 2021; Kim, 2018; Longhini, et al., 2020; Yuki & Eckenhoff, 2016). Kim (2018) goes as far as stating that the use of local anaesthetics may decrease cancer reoccurrence rates.

Conclusion

Adenocarcinoma is a chronic and complex disease (Pizzoli et al., 2019; Plage & Kirby, 2021). The nurse's part in the patient's cancer continuum journey within the perioperative phase is crucial (Bakos et al., 2018). We are charged as part of the multidisciplinary healthcare team with assessing and managing their health (Young et al., 2020). EBP ensures the care we provide is beneficial to the patient by utilising current knowledge, previous experience and the patient's preferences (Chan et al., 2020).

About the Author *Amanda Lindsay achieved a Bachelor of Nursing at Waikato Institute of Technology (Wintec) in Hamilton, Waikato, starting her nursing career in 2016 with Canterbury District Health Board (CDHB) in the Operating Theatres. She has specialised in Orthopaedic Trauma and General Surgery, working across most specialties after hours. She has been seconded to CDHB Covid response services such as Managed Isolation and Quarantine facilities (MIQ/MIF) and the Covid Community Hub. Amanda has also recently joined the Women's and Children's Quality and Safety team as a Quality Coordinator. She is passionate about working to improve services to ensure positive patient outcomes. Amanda has recently begun the Post Graduate journey with Whitireia, achieving the Post Graduate Certificate in Specialty Care (Perioperative).*

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Jackson Allison offering Yonker thermometers and pulse oximeters

Jackson Allison Medical and Surgical (JAMS) has recently added the Yonker range of thermometers and pulse oximeters to its already comprehensive product portfolio.

JAMS is offering three infrared thermometers from the extensive Yonker range.

Infrared thermometers employ a lens to focus the infrared light emitting from the object — in this case the human body — to a detector known as a thermopile, a series of connected thermocouples. When infrared radiation from the body encounters the thermopile surface, it gets absorbed and converts into heat, which is measured by sensors inside the thermometer and converted into a digital display.

The advantages over traditional mercury thermometers are faster temperature measurement (one second) and there is no requirement to sanitise the instrument between patients. There is also a growing trend to phase out or ban the use of mercury thermometers and other equipment containing mercury because of the toxicity of mercury to the individual and the environment.

The Yonker range of infrared thermometers — YK-IRT1, YK-IRT2 and YK-IRT4 — also offer high measurement accuracy: plus or minus one tenth of a degree Celsius (±0.1 C).

All three models run on a pair of AAA batteries, have built in fever alarms and automatically turn off if not being used after 60 seconds.

The Yonker YK-IRT1 has two functions, forehead and ear temperature measurement. For the latter, probe covers for ears use are sold separately in a box of 200. The YK-IRT1 is also quite compact, measuring 120mm × 40mm × 30mm and weighing just 50 grams (without batteries).

Yonker's YK-IRT2 infrared gun thermometer is a little bigger, measuring 150mm × 75mm × 50mm and weighs 120g (without batteries) and can measure temperature from an object up to 150mm away.

Finally there is the YK-IRT4 infrared forehead thermometer.

All three of these Yonker infrared thermometers operate at an ambient temperature of 10C~40°C and in relative humidity ≤85%.

Yonker pulse oximeter

Also in Jackson Allison's Yonker line-up is the YK80A pulse oximeter which monitors both oxygen saturation (SpO2) and pulse rate. SpO2 measurement is in the range 70%-99%.

The YK80A has dual colour OLED displays while a four direction and six-mode display provides convenient readings. The YK80A can be set to sound an alarm at a pre-determined SpO2 level or pulse rate and it starts automatically when your finger is inserted and automatically powers off in eight seconds when there is no signal. It also has a low voltage indicator. The YK80A is compact, light in weight and convenient to carry.

Left: YK-IRT2 gun thermometer. Right: YK80A pulse oximeter.

For more information on the Yonker range of thermometers and pulse oximeters, contact Jackson Alison Medical & Surgical **0800 333 103**, or email: **enquiries@jackson-allison.co.nz**

Left: The YK-IRT1, most compact of the Yonker range. right: YK-IRT4 infrared forehead thermometer

Red blood cell exchange system

German company Fresenius Kabi has won clearance from the US Food and Drug Administration (FDA) for a device that automatically removes patient's blood cells and replaces them with another fluid, particularly useful when treating sickle cell disease.

The device is known as the Fenwal Amicus Red Blood Cell Exchange (RBCx) system. It has been approved in Europe for three years and it is indicated for "therapeutic plasma exchange (TPE), mononuclear cell (MNC) collection and platelet collection," according to the company.

The Fenwal Amicus features integrated weight scales that measure and compare how much fluid is removed and how much is delivered to the patient. There is also an optical sensor that monitors the red cell separation process, helping ensure it is doing the job correctly.

The Fresenius Kabi Fenwal Amicus Separator helps blood centres increase their inventory of lifesaving platelet and plasma products, enhance the efficiency of their apheresis professionals, and expand the impact of their donors.

For more information, contact **Fresenius Kabi New Zealand: 0800 144 892 or 09 925 2721.**

Edwards Brain Oxygenation Sensors

Edwards Lifesciences has been cleared by the US Food and Drug Administration (FDA) to integrate its ForeSight brain tissue oximetry sensors with the HemoSphere monitoring platform. While the clearance is really for a connecting cable, the capability allows anesthesiologists to monitor the oxygen saturation of the brain during surgeries and to correlate it with hemodynamic parameters in real-time.

"Understanding the relationship between the heart and the brain can provide valuable patient insights to support decision making during a surgical procedure," said Katie Szyman, corporate vice president of critical care at Edwards.

"With the addition of the ForeSight sensors to Edwards' most modern platform, HemoSphere, we can offer clinicians a broad range of smart hemodynamic management solutions to help improve patient care."

The sensors rely on near-infrared spectroscopy to penetrate through the scalp and measure the oxygen content on the other side. One important feature of the HemoSphere system that the ForeSight sensors work with is that it offers clinicians the ability to predict many cases of unexpected blood pressure drops, allowing for timely intervention during procedures.

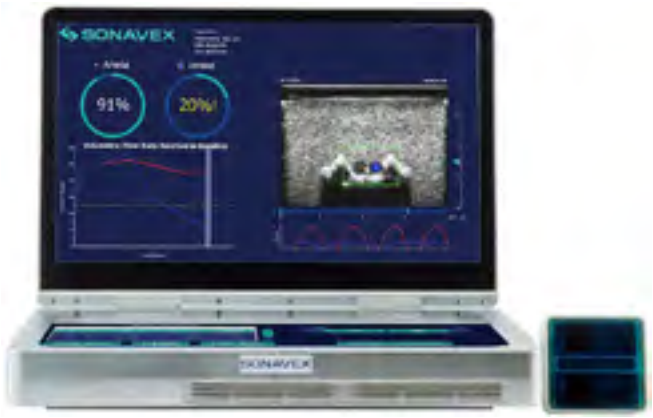
For more information contact Edwards Lifesciences - Sandy Scott **021 274 4810**; email: **sandy_scott@edwards.com** or Stephanie Westlake, **021 286 8088** or email: **stephanie_westlake@edwards.com**

Automated blood flow monitoring

An option to having a nurse or a trained sonographer using Doppler ultrasound is now available.

Baltimore, USA based Sonavex has won FDA clearance for its EchoSure system that combines 3D ultrasound with deep learning algorithms that can nearly completely automate the process of blood flow monitoring. The system provides both visual and quantitative outputs for quick and intuitive understanding of the situation.

Continued on page 30,



The system uses Sonavex's recently cleared EchoMark bioresorbable markers (bioresorbable polymeric implants) to calibrate to the imaging site and in the process making specialized sonography expertise unnecessary.

The system, once setup and monitoring the patient, can share its readings with the surgeon who performed the original procedure, via an app. This can allow the physician to make decisions remotely as to what to do in case there's a change in patient status.

"For decades, the surgical community has sought a simple, fast and non-invasive way to accurately quantify blood flow after microvascular and vascular surgeries," said Devin O'Brien Coon, MD, Chief Medical Officer and President of Sonavex and a board-certified plastic and microvascular surgeon at Johns Hopkins.

"Putting ultrasound technology in the hands of bedside nurses for the first time may enable detection of vascular compromise earlier than clinical observation alone, providing opportunities for more rapid intervention and improved patient outcomes."

More information from Sonavex, Inc., Baltimore, Maryland, USA: **+1 443 862-2024**

Portable battery-powered X-ray

A device that can be used inside clinical offices, surgical suites, and even taken in the field for help with disaster relief has been released by Turner Imaging Systems.

Its Smart-C X-ray device is a tiny C-arm designed for imaging the extremities at the point of care. The Smart-C weighs just 7 kg and can be carried by one person. There is no need to be near a power outlet to use as it is battery-powered. The wireless tablet that comes with it serves as a display.

"The Smart-C will revolutionize how and where doctors use x-rays," says D. Clark Turner, Ph.D., founder and CEO of Turner Imaging Systems.

"We envision the Smart-C being particularly useful for humanitarian aid workers, including Doctors Without Borders. Other specialty applications will include imaging in sports medicine, especially on the field or in the locker room, in-office outpatient orthopaedic surgeries, care on military battlefields, extremity injections for pain management, mobile radiology units in rural areas, emergency rooms and much more."

For more information, contact Turner Imaging Systems: tel. +1 866-870-2022 or email: info@turnerxray.com.

Cubro appoints new Wound Care Expert

Katie Cunard has joined Tauranga's Cubro as the company's new Wound Care expert. She is keen to bring the knowledge from the new international guidelines into New Zealand practice. With an in-depth understanding of the 2019 European Pressure Injury Advisory Panel's guidelines, she is eager to share the most up to date, evidence-based practices.

The 35-year-old graduated from nursing school 11 years ago and immediately began working in older person's health and rehabilitation at Princess Margaret Hospital in Christchurch. Her interest in wound care developed several years later while working in the plastic surgery unit at Christchurch Hospital.

"I am passionate about wound care because the outcome for the patient depends on the clinician's level of education in this area. What I'm most looking forward to in my new role is sharing my education with other clinicians so that best patient outcomes can be achieved," Katie says.

In 2018 Katie was selected by the Canterbury District Health Board to undertake specialist training funded by the Accident Compensation Commission (ACC) to help reduce the incidence and severity of pressure injuries across Canterbury and the West Coast. She found the year-long Pressure Injury Prevention Link Nurses course very rewarding and is now looking forward to increasing the wider knowledge base amongst health professionals in her new role with Cubro.

Pressure injuries can have a devastating impact on people's lives and are estimated to cost New Zealand's health system almost $700 million a year.

"I think it's a fantastic step in the right direction for Cubro," Katie says. "When it comes to pressure care, you don't know what you don't know. And sometimes it's nice to have another health professional to bounce ideas off. So I think establishing this position is a great asset for Cubro's clients to lean on."

Each year it is estimated 55,000 New Zealanders sustain a pressure injury, with 3000 people developing a pressure injury so serious that muscle, bone or tendon maybe exposed. Katie advocates a holistic approach that encompasses wound care products, positioning, nutrition and mobility.

"Ninety-five per cent of pressure injuries are preventable. So it's about identifying people's risks and treating them appropriately. Do they need an alternating air or pressure relieving mattress? It's just looking at the patient holistically and remembering that just because we've given them a pressure relieving mattress, they still need to be turned."

Over the years Katie has seen every type of wound imaginable. She enjoys a good challenge and testing her clinical skills and is keen to hear from anyone who needs advice or wound care expertise.

To contact Katie Cunard, telephone **(07) 810 6574 or 021 223 7427.** Alternatively you can email her: **Katie.Cunard@cubro.co.nz**

Behind the scenes at The Dissector

By Michael Esdaile

In the December issue we chronicled the first eight years of The Dissector *with Advantage Publishing: 1998 — 2006. In Part II MICHAEL ESDAILE looks back at the following 15 years…*

There was a period in 2004 when the journal was being produced by just three people: Fiona King (Editor) along with Catherine Logan and Karen Hall, as we detailed in the Part I (December 2021 issue). Then a youthful Irene Minchin came bouncing onto the Editorial Committee for the November 2004 edition to make a four-woman team.

Following Fiona's retirement as Editor, Catherine Logan took over the role for the November 2005 issue, at which point Kathryn Fraser also joined the team, an appointment that was to pay dividends for the journal down the track. That first issue under Catherine Logan saw the institution of a column from the College Chair. It was called *Table Talk*, with the first one written by Bettina Marenzi.

Bettina was to reveal in her final Table Talk (December 2006) that she had met with Catherine shortly after taking over as Chair, and that Catherine had suggested that using a page in *The Dissector* as a forum would provide the membership with information about what was happening at National Committee level. It is easy to see Catherine selling this idea with her firm but gentle manner. Sadly, Catherine died before reaching her full potential as Editor. So, after just three issues on the team, Kathryn Fraser was appointed Editor (September 2006). Fortunately, she had the by now very experienced Karen Hall, Fiona

The June 2010 Editorial Committee meeting was one of several held in the meeting room at Protec Solutions in Miramar. Left to right: Fiona Unaç (ex officio), Lisa Thomas-Czepanski, Kathryn Fraser (Editor), Sue Morgan, Bettina Marenzi and Johanna Cornwall.

King and Irene Minchin to back her up. However, this experienced team was mostly gone by the time Kathryn got the December 2006 issue to print a year after taking over. Only Irene remained. Joining the team were Joanna Cornwall, Sue Morgan and Helen Vaughan, to make an Editorial Committee of five. This team stayed together for nine issues before Irene stepped down following the publication of the May 2009 edition. Along the way, one of Irene's articles 'The precipice of change for advancing practice in New Zealand' was published in the *Journal of the International Federation of Perioperative Nurses*.

To fill the place vacated by Irene, one of Jean Koorey's original 1998 committee was able to re-join the team. So it was that Bettina Marenzi's name once again appeared in the masthead (August 2009).

For the December 2009 issue, Helen Vaughan was replaced by Lisa Thomas-Czepanski. This edition also saw Medical Imaging Nurses of New Zealand's Fiona Unaç join the team in an ex-officio capacity for two issues before Shona Matthews replaced her. Another appointment that was to bring long-term benefits to the journal.

Fraser initiatives

Under Kathryn Fraser's editorship, the Incentive to Publish scheme was initiated. This saw PNC members paid for articles they had written that were published in the journal; Advantage Publishing matching the College contribution.

In those days, *The Dissector* had its own funds which Kathryn fought to maintain in Editorial Committee control. However, by the time she stepped down, those funds had been brought under the umbrella of the National Committee.

Kathryn also pressed NZNO to arrange the binding and indexing of the first 30 years of *The Dissector*, a process she began in November 2006. It was completed by the end of 2007, when NZNO reported that "the first 100 issues (Vol. 1, No. 1 September 1974 – Vol. 33, No. 4 February 2006) were indexed by Nancy Fithian. A complete set was bound into volumes for archival purposes and as a reference set for researchers. These volumes are held by the NZNO library."

The plan was that every five years, the journal would be indexed and the copies bound, an initiative approved by the National Committee in 2011. The Editorial Committee is still waiting for the process to continue. — it has been delayed by the lack of a suitable indexer.

Also during Kathryn's tenure, in 2011 NZNO signed a licensing agreement with Cengage-Gale Learning to enable Gale "to include *The Dissector* in their Academic One and Expanded Academic Index databases, along with a three-years' worth of backfiles."

Hamilton's Helen Vaughan served on the Editorial Committee from 2006 to 2009.

Then in 2012, NZNO also signed a licensing agreement with EBSCO Publishing in the USA, which meant the electronic files of *The Dissector* were included in the flagship version of CINAHL called CINAHL Complete. This formalized a process that had been going on for the previous decade which had seen CINAHL Information Systems indexing the journal to "include the bibliographic details in the CINAHL database & cumulative index to Nursing and Allied Health Literature print index."

Kathryn Fraser's six years in the editor's chair had brought considerable stability to the journal by the time she stepped down following the publication of the September 2012 issue. Only Pam Marley had served longer as Editor, but not in a six-year unbroken term.

Kathryn's editorship of *The Dissector* was the culmination of many years' service to the College. She joined the Ruahine-Egmont

The editorial team at the 2010 PNC Conference in Rotorua, left to right: Shona Matthews, Bettina Marenzi, Kathryn Fraser (Editor), Sue Morgan and Lisa Thomas-Czepanski. (Absent, Johanna Cornwall).

Left: Rob McHawk provided great service to the Editorial Committee from 2011-2015. He is currently Treasurer of the College. Right: Hawkes Bay's Jennifer Sexton served on the Editorial Committee for five years, from 2012 to 2017.

Region of the College when it was established in 1980 and served as Secretary, and Treasurer, then in from 1999 to 2002 served as the Region's chairperson. Between 2001 and 2003 she was a member of the Education Working Party that focussed on Strategic planning and objectives for PNC. From 2003 to 2007 Kathryn was the Convenor of the PNC Education Committee and in that period she also served as the Ruahine-Egmont Regional Representative on the PNC National Committee (2004-2008) and was Vice Chair of the College at the same time she joined the Editorial Committee (2005-2006).

In 2014 Kathryn was awarded Life Membership of the College and in 2015 she won the Tina Ackland Award for outstanding service to Perioperative Nursing.

During Kathryn's final year as Editor, Irene Minchin, who had re-joined the team and had thus served on the Editorial Committee for two terms (November 2004-May 2009), then December 2011-September 2012, had been groomed to take over.

Irene had already instituted a new way of supplying the articles for each issue, setting up a Wikispaces site that allowed access to each Committee member. The editing was done by each member on their own PCs. When the copy had been edited it was forwarded to the publisher.

"I remember when . . ."

There was never really a time when I aspired to be an Editor of a nursing journal. Sometimes your destiny is sealed when the stars align and opportunities are presented in ways you least expect. I remember such a moment when Catherine Logan and Pam Marley walked into the hall where we were being welcomed at the commencement of the Perioperative Nursing Conference in Wellington in 2003.

Catherine Logan and Pam Marley were people whom I had admired very much over the years. They were an inspiration to others through articulating their passion for Perioperative Nursing. Catherine and Pam were considered role models of nursing professionalism — highly respected and valued by their contemporaries for their contribution as leaders within the operating theatre nursing speciality.

At the time, Perioperative Nursing was undergoing major shifts, with changes to perspectives of who we were as a group of nursing specialists and the culture within the profession was moving from "hand-maidens" to the surgeon, to independent, focused individuals who were leading changes within the perioperative profession.

Exciting times indeed – and I had felt most privileged to be part of this change through the work I was doing with other Perioperative Nurses as members of the Perioperative Nurses College (PNC) Education Committee. However – that is a whole other story.

On this particular evening, when I saw Catherine and Pam walk into the room, I had one of those goose-bump moments. I also felt compelled to say hello and connect with them. This was the beginning of a journey I never expected to take.

I am sure many of you are aware of the power of time, place and circumstances. The stars align so to speak, and you are drawn into something far greater than you can ever imagine would happen to you in your lifetime.

As noted, I was very involved in the work of the PNC Education Committee and Catherine congratulated me on the work we had been doing on behalf of the Perioperative Nurses College. She then asked me if I had ever considered becoming a member of "*The Dissector*" Editorial Committee. I had to say – in all honesty – no, I had not. It had never been a thought to aspire to be a member of the Editorial Committee.

Undeterred, Catherine then went on to sell me on the many opportunities being a member of *The Dissector* team would present. Most of all, Catherine was quietly persuasive in the way she presented her "case".

I said I would give it some thought – but – and of course – there is always a BUT – I was also studying, had a very busy family life and there were a number of matters related to the Education Committee that needed to be completed. By that stage we knew that Palmerston North was to be hosting the PNC Conference in 2005 and I had put my hand up

In recognition of her huge contribution to Perioperative Nursing, Kathryn Fraser was made a life member of the College at the 2015 annual PNC Conference in Palmerston North.

Shona Matthews' Grey Lynn home provided the venue for several Editorial Committee meetings. This is the team at the July 2013 meeting. Left to right Irene Minchin (Editor), Johanna McCamish, Shona Matthews and Sandra Millis. (Absent Rob McHawk).

After Wikispaces closed, Advantage Publishing established a space in Dropbox where the Editorial Committee could access articles and proceed in a similar manner to edit the material.

Irene served as Editor for three years, signing off with the publication of the September 2015 issue. Perhaps the issue of which she was most proud was the March 2015 edition, which celebrated the 100th anniversary of New Zealand nurses serving on the front lines during World War 1. Irene also wrote the lead article for that issue.

Following Irene's departure, Shona Matthews, who had joined the Committee five years earlier, moved into the role – steering *The Dissector* with great dexterity and continuing the stability established by Kathryn Fraser and Irene Minchin.

Other Committee members who provided great service to the journal in these years include Helen Vaughan (2006-2009), Johanna Cornwall (2006-2011), Sue Morgan (2006-2011), Bettina Marenzi (who served a second term from 2009-2011), Fiona Unac (2009), Lisa Thomas-Czepanski (2009-2011) and Rob Hawker (2011-2015).

Working with Shona Matthews was a committee made up of Johanna McCamish (2012-2017), Jennifer Sexton (2012-2017) and Sandra Millis (2013-2018), with Feng Shih and Tracey Lee joining the team in 2015.

to be a member of the organising committee for that.

Needless to say, I did join *The Dissector* editorial committee in 2005 and very quickly knew this was a role within PNC that comes with a good deal of responsibility, accountability and professionalism.

As we are all aware, Catherine had worked tirelessly to keep focused and to ensure copy for *The Dissector* was sufficient for Advantage Publishing to be able to continue publishing it. When I stepped into the role of Chief Editor, I had an amazing team of people around me and my journey within PNC took off on this incredibly exciting trajectory. My own passion, that of reading stories written by colleagues, was now a reality and I was in a most privileged position to continue the legacy of all other Editors of *The Dissector* and help publish those stories.

Armed with my wealth of information of Perioperative Nursing and having recently graduated with a Master in Nursing, the prospect of being Editor of *The Dissector* was a moment when I thought "I can do that."

The reality was rather different.

It was hard work, long nights, many drafts of copy, spell-checks, grammar checks, word checks, comprehension checks, using the thesaurus, and taking articles on a journey to give them a life that was unique and still retain the essence of the writer. Truly – that was one of the key opportunities that was amazing to me and a factor I was proud of when members of the Editorial Committee and I could maintain the true essence of the article and retain the integrity of the writer within the written text.

Being Editor of *The Dissector* was a time when I was presented with many opportunities to grow professionally and personally. The people I met, the places I went, the support I received can never be underestimated.

One of these key times was when I attended the International Federation of Perioperative Nurses (IFPN) conference in Harrogate, England. I was in a room meeting and greeting nurses from around the world and a person came up to me and said – "I love *The Dissector* – the day I receive my copy in the post I read it from cover to cover and just simply enjoy having learning about what is happening within Perioperative Nursing on the other side of the world."

How amazing! That was a fantastic tribute to not only myself as Editor – but also as recognition of my predecessors and the selfless dedication they contributed to ensure publication of *The Dissector*.

When Kathryn Fraser stepped down after six years as Editor of The Dissector in September 2012, founding Editor Pam Marley (left) was on hand to congratulate her. This was a unique moment: the longest continuously serving Editor (Kathryn Fraser) with the longest serving Editor (Pam Marley) who served a total of eight years, separated by a decade: 1974-'79 and 1989-'91.

Throughout those years as Editor, I was very grateful for the many opportunities presented to me and there are many people I have appreciated who came along on the journey with me.

Two very special people were Michael Esdaile and Bettina Marenzi. I look back and think – "did that really happen?" I have occasionally re-read some of my editorials and articles – and I think – "was that really me."

Then I think, "too darn right it was." — *Kathryn M. Fraser*

Editorial Committee May 2018, left to right: Feng Shih, Devika Cook, Sandra Millis, Shona Matthews (Editor) and Tracey Lee.

Over time, Catherine Freebairn, Devika Cook, Rebecca Porton-Whitworth and Sarah Winship joined the crew.

Shona was at the helm for five years, but even after she handed over to new skipper Bron Taylor for the March 2021 issue, she volunteered to stay on as navigator.

By then Tracey Lee and Feng Shi had finished their terms, as had Sarah Winship, so Bron had only a team of four to work with until Annie Du Plessis joined in time for the publication of the September 2021 issue.

Let us remember

Many of these committee members have provided a tremendous record of service to the Perioperative Nurses College – one that must not be forgotten.

Which is one of the reasons we are publishing this.

Too often the people who put in the long hours behind the scenes are not suitably recognised – partly because the sort of people who take on this role are not big on self-aggrandizement.

Shona Matthews Reflects

Shona Matthews completed a decade on the Editorial Committee of The Dissector *with the publication of the December 2020 issue. She joined the team for the June 2010 issue as an* ex officio *member, representing Medical Imaging Nurses.*

Shona was a fully-fledged member in no time and took over the editorship with the December 2015 issue after five years as an Editorial Committee member. Then, after five years as Editor, Shona stepped down following the publication of the December 2020 issue. However, she agreed to continue on the Editorial Committee while Bron Taylor gets fully to grips with the role.

Now in her 11th year, no one has served The Dissector *longer than Shona. Here is her reflection on her time with* The Dissector*:*

My involvement with The *Dissector* coincided with Medical Imaging Nurses New Zealand (MINNZ) joining the Perioperative Nurses College in 2009-10. I had just finished my master's thesis, so it was the perfect opportunity to combine my enjoyment of writing and reading. Membership of the Editorial Committee also offered an appealing way

Five years on the Editorial Committee, first under Kathryn Fraser, then Irene Minchin, served Shona Matthews well by the time she took over as Chief Editor in 2015. Shona's nautical experience showed in her steady hand on the helm.

So if they won't blow their own trumpets, who will?

Well, as Publisher, I thought it was well past time to reflect on the work all these people have put into their profession over the years.

And judging from my meetings with Bron and her team (both face-to-face and Zoom), they are more than equal to the efforts of their predecessors.

Each of the Editors we have had the pleasure of working with has brought their own flavour. Jean Koorey was very much the no-nonsense type, which was why she was so successful in re-establishing the journal after an 18-month hiatus. Sue Claridge followed in Jean's footsteps but with her own unique style. Fiona King too was a faithful servant of the College and kept the journal going until Catherine Logan took charge.

Catherine's vast experience in operating theatres and advocating for nurses within both the New Zealand Nurses Organisation and the College meant she had a lot of connections and a deceptively determined way of getting things done. This gave Kathryn Fraser a great platform to build on, which she did with great success.

Irene Minchin's breezy style was a real contrast to her predecessors

The February 2019 meeting of the Editorial Committee, left to right: Rebecca Porton-Whitworth, Sarah Winship, Tracey Lee, Catherine Freebairn, Feng Shih and Shona Matthews (Editor). (Absent: Devika Cook).

to be involved with the College while showcasing radiology nursing practice.

As medical imaging is still a relatively new area of specialist practice for nurses, there is still only a limited range of printed and online resources available so our own stories: research and innovation are very important.

During my time on the Editorial Committee, the process of collating and editing material has changed significantly with faxed or posted articles initially distributed to committee members for editing and return. Emailing of articles and online editing followed and eventually as editorial committee members home and work-based technology improved, use of a shared Dropbox and 'cloud' storage. This now allows several Editorial Committee members to work on and check articles with final approval from the Chief Editor. It also enables ready sharing of digital images for inclusion, although we have all required education from Michael Esdaile of Advantage Publishing on the quality or necessary resolution of images for publication. Michael can now directly download material from the Dropbox for the designer to lay out and organise, with less editing required on his part.

The other major change has been the steady improvement in the quality and range of material received, no doubt aided by the technology but also reflective of the increasing number of nurses undertaking postgraduate education and specialist roles and their ease in writing. Fortunately, I was able to work with two very able Chief Editors, Kathryn Fraser, and Irene Minchin, before taking over the role in 2015. This enabled me to develop a greater understanding of the 'workings' of the Perioperative Nurses College and the important issues within the wider perioperative nursing continuum. It also enabled me to hone my editing skills and the important balancing process required to retain the essence of an author's work while producing an accurate, readable article for a wider international nursing audience.

Overall, being part of the Editorial Committee and Chief Editor has been hard work but a wonderful experience. The friendships and camaraderie with colleagues throughout the country has been special. I get a real buzz out of reading a great article and seeing it finally laid out, plus receiving excited calls and emails from authors when they see their work in print for the first time.

Of course, there have been frustrations, such as nurses promising material and it not eventuating, and trying to explain the difference between a university assignment and a readable coherent article.

Involvement with the Perioperative Nurses College and attendance at our annual conferences has also been hugely rewarding and undoubtedly beneficial for those of us involved. My only regret is that more Medical Imaging Nurses have not embraced the opportunity.

A special thanks to all the Editorial Committee members I have worked and shared my home with and to Michael Esdaile for your patience and hard work bringing the journal to print.

— Shona Matthews

Above left: *Pam Marley, founding and longest serving Editor of The Dissector (left) was on hand to present longest continuous-serving Editor Kathryn Fraser with a gift of appreciation from the Editorial Committee at the 2012 Annual General Meeting of the College in Wellington.* ***Above right:*** *Auckland City Hospital's Department of Anaesthesia provided the venue for the February 2021 Editorial Committee meeting. Left to right: Shona Matthews, Catherine Freebairn and Bron Taylor (Editor). (Absent: Rebecca Porton-Whitworth, Devika Cook and Gillian Martin).*
Left: Shona Matthews with the publisher.

while Shona Matthews is an absolute gem.

But let us not forget the huge effort it took to start *The Dissector* in the first place. It was 47 years ago that Pam Marley took on the role of Editor, with no one to guide her. Starting from scratch, Pam had to work out how to solicit articles from her peers, edit them, then have someone arrange the typesetting, layout of the articles into pages and printing. Not only that, she and a small team also took care of the mailing.

It is humbling to think of the task that must have been. It was her dedication and ability to produce a very fine Perioperative Nursing journal that lay the foundations for what you are holding in your hands today.

Editorial Committee Meetings

The terms of the contract with Advantage Publishing call for two 'production liaison' meetings with the Publisher and nominated members of the Editorial Committee each year. Separately, it calls for the Editorial Committee to meet "as often as required", either face-to-face or by Video or teleconference.

In practice, these were combined, with the whole Editorial Committee meeting with the publisher twice a year - one early in the year, the other at the annual PNC Conference.

The early-year meetings were held at a variety of venues: a motel in Taupo; the NZNO offices in Wellington; meeting rooms at Wellington Airport; the offices of Protec Solutions in Wellington (thanks to the long-term support of Murray McIvor) and at the Auckland homes of the late Catherine Logan and that of Committee member Johanna Cornwall.

During Shona Matthews' stewardship, the Editorial Committee has met at her Auckland homes, first in Grey Lynn, then in Herne Bay. Freshly baked muffins and real coffee have been the hallmarks of these — plus saving the College the cost of hiring a meeting venue.

Now they are being held in a meeting room at Auckland City Hospital, which is set-up for Zoom meetings — very important when Government-ordered travel restrictions are in place.

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