NEW ZEALAND NURSES ORGANISATION | TŌPŪTANGA TAPUHI KAITIAKI O AOTEAROA

PERIOPERATIVE NURSES COLLEGE N.Z.N.O

The Dissector

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

March - May 2024, Volume 51, Number 4

Physiological Impact of Tourniquet Use

Optimal use of pneumatic tourniquets

CLINICAL PRACTICE

Endoscopic vein harvesting – NZ nurses report from USA

EVH at Christchurch Hospital

FROM THE ARCHIVES: RNs' contribution in the OR

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THE DISSECTOR

MARCH - MAY 2024

Volume 51, Number 4

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Touching Base

EDITORIAL COMMITTEE

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AUTHOR GUIDELINES

The Editorial Committee of *The Dissector* welcomes articles, reports, book reviews, letters to the editor, exemplars, case study experiences, research papers/projects, theatre regional news etc. Please send your ideas to: dissector.editor@gmail.com

Breaking new ground!

Tēnā koutou katoa. We are very excited to welcome you to the first electronic issue of *The Dissector* and the first issue of 2024. The decision to move to an e-journal was approved by the National Committee in 2023 as the previous three issues' publication needed to be financially supported by PNC due to a combination of reduced advertising revenue and an increase in postal costs.

Advantage Publishing undertook a very thorough review of what all the other Colleges of the New Zealand Nurses Organisation were doing to fulfil their obligations to maintain their College status. We were offered a choice of formats and agreed on this version as it is similar to the print edition, with the added advantage of 'clickable' links.

Whilst some of you may be disappointed not to be receiving a hard copy of the journal, please know that we are committed to continuing to bring you a high-quality journal with the high standard of content you are used to. There are also subscription options for members and non-members who wish to purchase print editions.

Endoscopic Vein Harvest for Coronary Artery Bypass Surgery

In this issue, we have two complementary articles about Endoscopic Vein Harvesting (EVH) for coronary artery bypass surgery.

Jacque Roberts and Kelsey Abercrombie, Registered Nurse First Surgical Assistants in cardiothoracic surgery at Te Whatu Ora Waikato describe their journey and experiences while travelling to New York and discuss how they plan to translate this new knowledge into their clinical learning as well as developing an EVH programme in their region.

Editorial Committee member (and prolific author) Rebecca Porton-Whitworth also writes about EVH, as Christchurch has already implemented this innovative technique. Rebecca's article has a focus on anatomy and surgical techniques as well as reflecting on the process of applying for funding and implementing the programme in her hospital.

Tourniquet Use

Anna Laurenson provides us with an article discussing the physiological impact of tourniquet use. This article presents a current literature analysis of pneumatic tourniquet utilisation, focusing on the risks and benefits and nursing implications. Anna argues that perioperative staff must be competent and confident with tourniquet use including monitoring and treating potential postoperative complications.

50th Anniversary

It's our 50th anniversary this year. As such we're planning to re-publish award-winning articles to celebrate the last half-century of perioperative nursing focussed publications. The first of these articles is Anne Johnston's essay *An Instrument of Giving (the contribution of the Registered Nurse in theatre)*, originally published in *The Dissector* in February 1980 (Vol. 7, No. 1, pp 23 – 25). Anne's award-winning article's argument is that RNs are essential and their contribution is their professional knowledge and caring ability, which still rings true today.

National Committee

Also included in this issue are brief bios of our National Committee members. Over the last year or so I've gotten an inkling of just how much time and effort goes into being on the National Committee and I'd like to acknowledge all of them for their dedication to our College.

Each Committee member not only represents your region but also holds a separate portfolio of work. The Committee meet regularly via face-to-face and Zoom meetings as well as staying in touch through other forms of communication.

Frequently a 'WhatsApp' message will come through with a member's question and your Committee members offer responses reflecting their own workplace experience. How we advocate on your behalf is a direct response to your queries and questions, so please reach out to your regional representative if you are interested in contributing to the future of perioperative nursing.

Professor Marion Jones NZ Order of Merit

We'd like to congratulate Emeritus Professor Marion Jones, who was appointed an Officer of the New Zealand Order of Merit, in the New Years Honours List. Professor Jones was one of the early driving forces within the Auckland Theatre Nurses Section of the then New Zealand Nurses Association and she continues to contribute to the College today as a well-respected member of the Perioperative Practice Committee.

Don't forget we really want to hear from to you, so please send your stories to dissector.editor@gmail.com.

Noho ora mai

Bron Taylor, Chief Editor

The Dissector
The official Journal of the Perioperative Nurses College of the New Zealand Nurses Organisation (PNCNZNO).
www.nzno.org.nz/groups/colleges/perioperative_nurses_college

March-May 2024, Volume 51, Number 4
The Dissector is published quarterly (March, June, September, December) on behalf of the College by Advantage Publishing Ltd.

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CIRCULATION *The Dissector* is emailed direct to all financial members of PNC, NZNO as well as paid subscribers, including medical industry representatives, libraries and nurse training institutions.

FOUNDING EDITOR: Pam Marley (1974 – 1979)

EDITORIAL MATERIAL The Editorial Committee welcomes articles, reports, book reviews, letters to the editor, practice issues, exemplars, case study experiences, research papers/projects, regional news etc. Please send your ideas to: dissector.editor@gmail.com

All editorial material is reviewed by the Editorial Committee. Whilst every effort is made to ensure accuracy, the Publishers and their agents take no responsibility whatsoever for errors, omissions, or any consequences of reliance on this material or the accuracy of information. The inclusion or exclusion of any product or advertisement in no way means the Publisher or the Perioperative Nurses College advocate or reject its use in any way.

AUTHOR GUIDELINES The Editorial Committee has developed Author Guidelines designed to help first-time authors, as well as those who have published previously. They are available by clicking this link.

CORRESPONDENCE The Editorial Committee welcomes all correspondence intended for publication. Correspondence should be addressed to the Editor, Bron Taylor: dissector.editor@gmail.com or call: 027 323 2857

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Succession planning

2024 will be an active, busy and engaging year for Perioperative Nurses College (PNC) of New Zealand Nurses Organisation / Tōpūtanga Tapuhi Kaitiaki o Aotearoa (NZNO). This year our focus is on succession planning, membership feedback, and active stakeholder engagement with NZNO, perioperative workforces and our own members within the regions.

PNC is currently responding to NZNO Chief Executive Paul Goulter's request for Colleges and Sections to deliver a report outlining our influence within Aotearoa, our performance and the reach of our College and Section to perioperative nurses of Aotearoa. This information will assist NZNO to support them to more capably meet their planned outcomes and achieve our aims which are critical to NZNO's mission as defined in Maranga Mai!

PNC, in response to this request from NZNO, have also asked for an increase in communication with nurses in Aotearoa who identify as perioperative members. This opens up a large piece of work with NZNO to enable nurses the ability to identify and distinguish themselves as perioperative nurses, in turn this provides PNC with the ability to provide support, guidance and leadership to those nurses for their perioperative practice in Aotearoa and much more.

We look forward to sending in a detailed report of PNC and thank members and perioperative health professionals who have responded to our survey.

Join the College

I introduced this table talk with mention of succession planning within our regions, our sub-committees of PNC and the National Committee PNC. It is important that, to be influential and perform to our highest ability, PNC has the membership and succession plans in place for roles within the regions.

Without members we have no voice, no influence and no ability to support you in your workplace, so I am calling all perioperative nurses to action. I am inviting you to be a part of the Perioperative Nurses College and be a part of the movement and organisation that provides the only perioperative support, education, guidance and practice frameworks for Aotearoa's perioperative nurses.

There are local regions of which you can be part of, showcase your talents and share your perioperative professional practice qualities with each other. You can join anytime via our website by following this link: Join the Perioperative Nurses College (nzno.org.nz).

Vice-Chair

The first part of succession planning for 2024 is the call for nominations for the Vice Chair position of PNC. The newly elected position holder will become the next Chairperson of PNC when the current chairperson's time in office concludes at the end of the year. This is an exciting opportunity for a PNC member to take up this leadership position in perioperative nursing in Aotearoa. There will also be several other opportunities to consider so tap your colleagues on the shoulder and reach out to your regional representatives or contact pnc.sec@xtra.co.nz for further information.

The PNC intentions this year aligning with our strategic planning are to attend to:

- Delivering a successful conference – Embracing the Future; everything counts. Go to www.perioperativeconference.org for more information
- Discovery of perioperative educational online platforms that promote Aotearoa Perioperative practice.
- Attendance and representation at the July NZNO conference, concentrating on nurse-patient ratios in Aotearoa
- NZNO Constitutional Review participation at NZNO conference
- Medical Sciences Council proceedings with the proposed AT Scope of practice reform.
- International relationship building and representation at the AORN and EORNA conferences

PNC's aim is to be the key stakeholder of perioperative practice in Aotearoa by representing and attending the above key meetings and leading the engagement we will ensure that nurses working in the perioperative environment will be supported, guided to deliver perioperative practice that is up to date, scientific and evidenced-based and values the role of the nurse.

Advantage support

Lastly, and not by any means least, is our important focus of ensuring PNC remains in line with our members and is sustainable in the ever-changing world of online and accessible content. *The Dissector* Journal is now digital. This switch would not have been successful without the valuable, dedicated and committed relationship with Advantage Publishing, led by Michael Esdaile.

You may have seen Michael at our conferences with his camera, chatting amongst us, asking to take a photo of your celebrated conference awards or presentation. Michael has been closely associated with PNC for longer than I have been a member and has supported and guided us to continue to deliver *The Dissector* in all its celebrated perioperative glory!

PNC looks forward to this valuable and continued relationship with *The Dissector* and all the tips and advice you have for our College. Thank you, Michael.

National Committee started this year off with renewed motivation and encouragement to ensure that the Perioperative Nurse College continues to grow as a valuable asset to membership; we want to be intentional with our aims, challenge the status quo to deliver excellence and grasp all opportunities on offer. We hope to see you with us and walk alongside us this year embracing the future and making sure everything counts.

Nga mihi and kia kaha.

Cassandra Raj, Chairperson PNC,
Tōpūtanga Tapuhi Kaitaiki O Aotearoa (NZNO)

Marion Jones awarded New Zealand Order of Merit

Emeritus Professor Marion Jones has been appointed an Officer of the New Zealand Order of Merit for services to education. This was announced in the New Years Honours List 2024.

The Perioperative Nurses College was delighted to support her nomination for the New Year's Honour, with former chair Juliet Asbury stating "Marion has been a fantastic support throughout the history of the College and we have always valued her knowledge and expertise in perioperative nursing."

Professor Jones has contributed to nursing education in New Zealand and internationally for 40 years. She was one of the early driving forces within the Auckland Theatre Nurses Section of the then New Zealand Nurses Association, working with the late Catherine Logan to develop staff education at Auckland Hospital.

She later worked with Logan and the late Dallas Jessiman, another foundation member of what is now the College of Perioperative Nurses, in the development of standards of practice, education programmes and assisting new students and graduates in their new roles as staff nurses.

Professor Jones continued her involvement with Logan in developing national education programmes and teaching many groups, including anaesthetic technicians. Together they ran perioperative courses at Auckland University of Technology (AUT) and also the Auckland Institute of Technology (AIT).

Professor Jones went on to become Associate Dean, Postgraduate of the Faculty of Health and Environmental Studies at AUT between 2001 and 2011. While there she implemented the Master of Health Science across multiple majors and the Doctor of Health Science to all registered health professionals.

Professor Jones previously helped implement the new Auckland University of Technology (AUT) Bachelor of Health Science and the integration of disciplines to better equip those undertaking the degree.

She was Dean of the Graduate Research School at AUT between 2011 and 2020, serving as the establishment lead in overseeing masters and doctoral programmes. Prof. Jones was also instrumental in the development and implementation of AUT's Higher Doctorate programme and has audited and reviewed for several educational institutions.

Professor Jones has been a global contributor to the development of interprofessional education, as an author, keynote speaker and member of the steering committee that established the International Federation of Perioperative Nursing (IFPN) in 1999.

She was also instrumental in the establishment of the National Centre for Interprofessional Education and Collaborative Practice (IPECP) in 2009 and has served as director since.

Through IPECP she has collaborated with international professionals, educators, researchers and practitioners and has been a founding member and New Zealand representative of Interprofessional Global since 2018.

Since 1984 Professor Jones has been an active member of the Auckland Region of the Perioperative Nurses College (previously the Auckland Theatre Nurses Section of New Zealand Nurses Association). She served on both the Regional Council as a Committee member and on the Greater Auckland Region (GAR) council of NZNA from 1990 to 1996. In 1993 she was the project leader for an NZNA working party looking at the revision of Standards for Nursing Education in New Zealand.

She was instrumental in bringing the World Conference on Surgical

Professor Jones (second from left) with the members of the board of the International Federation of Perioperative Nurses in Queenstown, October 2014. They are: Bonnie McLeod (Canada, extreme left) then Phyliss Davies, (IFPN Ambassador, Papua New Guinea); Patrick Voight (director with Deloitte Consulting and Ambassador to IFPN); Irini Antoniadou (Sweden); Victoria Steelman (USA); Fiona Unaç (New Zealand); Eunice Liam (Papua New Guinea); Ruth Melville (Australia); Rupinder Khotar (Canada) and Sue Lord (United Kingdom).

Patient Care to New Zealand in 2001. This saw Prof. Jones deliver the keynote address to more than 1400 nurse delegates from 39 countries who descended on the Christchurch Convention Centre.

In her presentation, 'Perioperative Leadership in the New Millenium,' Prof. Jones said "I believe we all have the potential to be leaders. We need to break out of the model that recognises only managers as leaders and realise we all have a role to play." She added that her vision of a leader was "someone who grabs the moment is anyone and everyone, sees this as a professional responsibility, has expert knowledge and skill, is creative and has a vision to move forward."

Prof. Jones was at the forefront of another international conference when the International Federation of Perioperative Nurses held their annual meeting alongside the PNC Conference in Queenstown in October 2014.

Prior to that annual meeting, Prof. Jones chaired a panel discussion with the IFPN Board of Directors and the 257 nurse delegates on the opening morning of the conference. Delegates were able to ask the panel questions relating to current issues facing nurses in the countries the IFPN board members represented.

In 2015 she was honoured by the New Zealand Nurses Organisation (NZNO), with then President Marion Guy saying "Marion Jones' contribution to nursing, and in particular to perioperative nursing both nationally and internationally, was exemplary".

Prof. Jones, RGON, BA, MEdAdmin (Hons.), PhD, has also contributed to *The Dissector* several times. Among her articles are:

- Nursing as a cultural role in New Zealand. 10(4), 12–16 (1983);
- Pain management – the pivotal role of the nurse. 15(2), 3–6 (1988);

- Collaborative practice & quality care. 27(2), 21–23 (1999);
- International Planning Committee for World Conference. 27(1), 28 (1999);
- Launch of world body for perioperative nursing. 27(2), 4 (1999).

Reference

Department of the Prime Minister and Cabinet. (2024). New Year Honours List 2024 - Citations for Officers of the New Zealand Order of Merit. Retrieved from https://www.dpmc.govt.nz/honours/lists/ny2024-onzm#jonesed

Kathryn Fraser passes

As this issue was being prepared for production, we received word that former editor Kathryn Fraser died on May 8.

Kathryn took on the role of *Dissector* Editor following the death of Catherine Logan on July 19, 2006. Kathryn had only been on the Editorial Committee for 10 months at that point but went on to serve as Editor for an unbroken period of six years. She was responsible for overseeing the publication of 25 editions of the journal, the most for which any editor has been responsible.

There will be an appropriate obituary for Kathryn in the June-August issue.

2024 PNC Conference

The 48th Perioperative Nurses College conference will be held in Wellington on October 17-19, 2024. This is the ideal opportunity for Perioperative Nurses to reconnect and promote excellence in nursing practice in the pre-, intra- and postoperative care of patients.

The 2024 version is running under the theme: "Embracing the Future: Everything Counts" and is being organized by Composition Ltd in collaboration with the Wellington PNC Regional Organising Committee: Reggie Williams (Convenor), Juliet Asbery (Vice convenor), Amber Cox (National Committee Representative), Emma Brooks, Grace Cui and Tim Hill.

For full details click on the conference website here – or email: pnc@composition.co.nz

Second World Nursing Science Conference

The second World Nursing Science Conference (WNSC 2024) will be held in San Francisco, USA from September 7-9 2024 as a hybrid event. This means registrants may attend in person, or virtually.

The conference theme is "Advances in Modern Nursing Practices and Exploring the Frontiers of Nursing Science."

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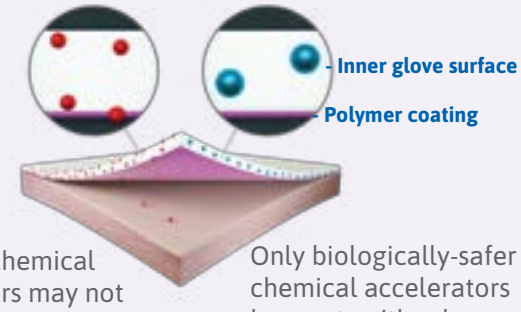

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Go to the conference website for more information: https://www.globalnursingconference.com/ or contact Kate Flores, Program Manager, WNSC 2024. Email: nursing@precisionglobalconferences.com Phone: +1-571-5561014

50th NZSSA Conference

The **New Zealand Sterile Sciences Association** is holding its 50th Anniversary Conference in Auckland this year. It will be held at the Aotea Centre in Auckland from September 25-27, 2024. For more information, email: nzsterilescienceassoc@gmail.com Website: nzssa.org

Freebairn and Martin step down

Long serving Editorial Committee member Catherine Freebairn has stepped down from *The Dissector* after serving five years in the role.

Catherine has made a strong contribution to your journal, particularly in the area of Medical Imaging, and we would like to acknowledge her dedication, time and commitment over the last five years.

Gill Martin has also stepped down to focus on her Perioperative Practice Committee responsibilities and we would like to commend her for her contribution to the journal during her tenure representing National Committee.

Eby Eapen-Matthew and Olivia Bradshaw have also both just stepped down. This means we need more Editorial Committee members, especially those with a PACU or Medical Imaging background.

If you are interested in this very rewarding role, contact the Chief Editor, Bron Taylor: dissector.editor@gmail.com

Gillian Martin (left) and Catherine Freebairn

Join the Editorial Committee!

Do you want to be part of a dynamic team? Have a desire to share your clinical expertise, research, quality projects and case studies?

Joining the Editorial Committee of *The Dissector* brings all these rewards, and more, including funding of your attendance at the PNC National Conferences.

The Dissector journal provides an ideal platform for perioperative nurses to develop their writing skills.

Ideally you will have an appropriate post graduate qualification and/or sound knowledge of academic writing, including editorial skills. Most importantly, you will have a passion for sharing knowledge with others. We offer a supportive environment in which to help you develop your writing and editing skills alongside the current editorial team.

The role of Editorial Committee members is threefold: to assist the Chief Editor to plan the quarterly journals; to procure material for each issue; and to carry out first edits on submitted material.

Planning involves attending three on line meetings of the committee during the year and two meetings at the National Conference.

Procuring material includes writing articles, encouraging colleagues engaged in research, postgraduate study, or quality projects to write for the journal and working with peers to source interesting material or case studies.

Editing involves reading and reviewing articles for cohesion, understanding grammatical errors and language. Editing also includes reviewing key elements such as the content, introduction, headings, abstract (150 -200 words) and keywords (five or six) have been provided and that APA style referencing is accurate. Any submitted photographs or images are also reviewed to ensure they are suitable for publishing.

Articles are typically allocated by the Chief Editor to a particular committee member with known expertise in the area. Articles are edited within a dedicated Dropbox, using tracked changes identifying committee members' contributions. The Chief Editor does a final check of all material, accepting or rejecting tracked changes prior to releasing material to the Publisher for design and layout.

Dissector Writing Guidelines are available and are regularly published in journal issues. While *The Dissector* is not formally a peer reviewed journal, we do endeavour to ensure the content is accurate.

Members of the Editorial Committee, like the National Committee, are expected to attend the annual PNC Conference with travel costs, registration and accommodation funded by the National Committee. Travel costs to attend the other *Dissector* face to face meetings are also covered.

If you are interested in joining the Editorial Committee, please submit a letter expressing your interest and a copy of your CV to the PNC secretary on pnc.sec@xtra.co.nz and include *The Dissector* Chief Editor on dissector.editor@gmail.com

For further information on the role and responsibilities of the editorial committee please contact the Chief Editor.

Auckland- Northland Medical Imaging Study Session

The latest of these ever-popular study sessions focusing on medical imaging was held at the usual venue, OBEX Medical's Conference and Education Centre offices on Carton Gore Road in Auckland.

Twenty-three Radiology Nurses and Medical Imaging Technologists (MIT) attended. As always, the session included a break for morning tea where attendees could meet and share with radiology colleagues from other radiology departments, both public and private.

The morning opened with a presentation by Paul Maggs, a Senior MIT working at ASTRA Radiology in CT and PET (Positron Emission Tomography) scanning and Greenlane Clinical Centre Radiology Department CT scanning. Paul's presentation was an overview of PETCT scanning, an imaging technique that combines the two diagnostic imaging modalities.

Dr Simone Oldham's presentation covered a number of imaging case studies, with diagnosis made with the aid of PET scanning.

OBEX Medical's David Ching (right) presented Shona Matthews with the Christina Ackland Memorial Education Award for Services to Perioperative Nursing.

An in-depth article on this topic will be published separately.

Paul was followed by Dr Simone Oldham, Radiologist who also works at ASTRA and Greenlane. Her presentation covered a number of imaging case studies from patients with, sometimes obscure, diagnosis made with the aid of PET scanning.

During the course of last October's morning session, two awards were presented to PNC members. The first was for the Best Article published in *The Dissector* in the last 12 months. This is now sponsored by REMS Systems and went to Liying Duan for her article which described a quality improvement clinical project in response to an identified need for a written diabetic management guideline, specifically for outpatients undergoing CT Colonography (CTC).

The second award was the Christina Ackland Award. This was originally sponsored by Downs Distributors on its inception in 2012 and since 2021 sponsored by OBEX Medical following the acquisition of Downs. The award is given to acknowledge an individual PNC member for their outstanding service to the perioperative community. The 2023 award (see *The Dissector*

Some of the Radiology Nurses and Medical Imaging Technologists who attended last October's Auckland-Northland Region study session.

January 2024, Vol. 51, No. 3) went to Shona Matthews, recognizing the work and commitment she has done for the College over many years.

Liying Duan also gave a presentation during the morning entitled "Preparing patients with Diabetes for CT Colonography". For more detail please refer to Liying's excellent article, published in the June 2023 (Vol. 51, No. 1) issue of *The Dissector.*

Gill Martin, Radiology Nurse Specialist at Te Toka Tumai I Auckland described a new technique recently introduced for the treatment of cerebrospinal fluid leak. Historically the treatment has been rest, in the hope the leak would self-seal, a blood patch using the patient's own blood to seal the leak, or surgery, which comes with associated risks.

The new treatment is to use a fibrin sealant that is injected, under CT scan imaging, either with or without the addition of a small amount of the patients' blood, to seal the leak.

Gill briefly went over anatomy, causes and symptoms, then explained the technique used for the treatment.

As always, we would like to thank the team at OBEX Medical for their valued support and continued interest in Medical Imaging Nursing.

Dissector Editor Bron Taylor (left) with Liying Duan (centre) and Shona Matthews. Liying won the national award for the Best Article in The Dissector.

Wellington PACU Study Days prove very popular

Well, 2023 certainly flew past! The highlight for College members in the Wellington Region were the PACU Study Days in March and November.

In March we held our first PACU Study Day at Hutt Valley learning auditorium. This was the foundation to developing the November 4 Inaugural PACU Basics Study Day at Rydges Wellington Airport. Both days were very successful.

The November 4 day and was very well received by the PACU community. In fact the course was full within weeks of opening registrations.

Choosing the Rydges at Wellington Airport as the venue, meant that anyone from around the motu could fly in and fly out with reasonable ease. Of the 25 participants at the November study day, just one was from the Wellington PNC Region! We had nurses from Dunedin, West Coast, Christchurch, Auckland, Nelson to name a few places. Unfortunately I missed capturing any images from the event as I was too busy to take any.

We have used nursing and dual registered nurse/anaesthetic technician clinical educators to deliver PACU specific content and we plan to continue to deliver this content into the future for members and non-members.

Wellington Region continued to host their third PACU study day on March 9, 2024. With the national PNC Conference coming up in October, Wellington Region is going to concentrate on delivering a great conference including PACU content. There will thus be no November PACU Seminar but there will be another Seminar in **March 2025.**

Laparoscopic Workshop...

In other specialty areas, it was a huge shame that the Laparoscopic Workshop scheduled for September 30 at Boulcott Hospital had to be postponed due to insufficient registrations. There were 30 places available and we were sure these would be filled. A lost opportunity, but if there is demand we can bring it back and start again.

The Wellington PNC Region needs its members to be involved and please tell us (your committee) what you want. Both pre- and post-Covid, we have struggled to get member engagement. Our regional secretary Karen Hall would very much like to pass the baton on to a motivated and enthusiastic nurse working in the perioperative spectrum in Wellington region. So if you are a nurse working in operating theatres and want to volunteer some time and reap the professional rewards, I encourage you to take up this opportunity.

For those of you who may not be members of the New Zealand Nurses Organisation (NZNO) but are reading this article, you should really become involved in your professional body representing the specialty area you work in. Talk to your local NZNO delegate on the many benefits of becoming a member of the NZNO and then join the PNC. Please come along to our workshops and education sessions in 2024, or get in touch to discuss ways in which we can further our professional group.

I can be reached at amber.cox@wairarapa.dhb.org.nz if you have any queries.

Paediatric Seminar

On June 8, the Wellington PNC Region will be hosting a Paediatric Seminar and also holding our AGM. Those who attend the AGM in person or via Zoom (and are a Wellington PNC Region member) will be able to be in to win one of two full registrations for the national PNC conference in October.

Because the national conference is in October, we have decided to postpone the anticipated November PACU basics Seminar and schedule this for **March 2025**.

There will also be a PACU basics study day in **November 2025**.

For those keen to keep up to date with what is happening in the Wellington PNC Region please ask the readership to check the Wellington region on the PNC website for updates with what is available.

— Amber Cox
Wellington Region National Committee Representative

Meet the National Committee

Chair - Cassandra Raj, RN, BN, PG Dip

Cassandra is the current Chair of the Perioperative Nurse College of the New Zealand Nurses Organisation (PNC NZNO). She took over leadership of the College after the October 1 annual general meeting in 2022.

Cass graduated in 2001 with a Bachelor of Nursing Degree through Waikato Institute of Technology. Following this she went to Australia for six and a half years, doing every type of perioperative nursing the agencies could throw at her.

In 2008, Cass returned to the Bay of Plenty, where she completed a Post Graduate Diploma in Nursing then spent 13 years in Tauranga Public Hospital, Bay of Plenty District Health Board.

In 2021 Cass and her family chose to move to Thames, to be closer to family, and the fishing. Her current role is now Tapuhi Whai Rēhitatanga (Clinical Nurse Coordinator) at Thames Perioperative Department, Te Whatu Ora, Waikato. She works with an awesome team that she hopes to give back to by supporting and guiding them to be the best they can be, and working alongside to provide increased perioperative care to the community of Thames/Hauraki and Waikato. Cass's personal goals involve maintaining high standards of perioperative nursing practice and supporting fellow nurses to seek out every educational opportunity. She works well under pressure, and challenging situations bring the best of her critical thinking abilities. She takes pride in supporting perioperative nurses to be the best version of themselves.

To contact Cass please use periopchair@gmail.com

Secretary - Leanne Dalley RN

Leanne is the current Secretary for the PNC NZNO National Committee.

She works at Southern Cross Invercargill as a theatre nurse, specialising mainly in orthopaedics and urology. She is a Registered Nurse First Surgical Assistant (RNFSA) for Invercargill orthopaedic surgeon Dr Chuck Luecker. So she currently has the best of both worlds, seeing patients in clinic, surgery and then following them up post-op.

She is also the procedure room manager at 223 Spey Street where there is a small procedure room in which local cases are performed, such as carpal tunnel decompression, trigger finger release and De Quervain's tenosynovitis.

Leanne studied at Manukau Institute of Technology and started her career at Middlemore Hospital, on an acute orthopaedic ward. She particularly enjoyed working with spinal patients.

In 2003 Leanne moved to Invercargill, for a year. This was the beginning of her perioperative nursing journey, working at Southland Hospital for 13 years. Working as a junior inexperienced nurse, gradually developing skills and eventually becoming the Floor Co-ordinator. While working at Southland Hospital she met Dr Luecker and he employed her to assist him privately at Southern Cross. He also encouraged her to complete the RNFSA Post Graduate Certificate through the School of Nursing at the University of Auckland.

To contact Leanne please use pnc.sec@xtra.co.nz



Left to right: Cassandra Raj, Bron Taylor and Gillian Martin.

Leanne Dalley

The Dissector **Chief Editor - Bron Taylor, R Comp N, MN (Hons)**

Bron is the current Chief Editor of *The Dissector*, our PNC national journal, and is also a member of the Perioperative Practice Committee. She works at Te Toka Tumai | Auckland, Te Whatu Ora. She has worked there for more than 28 years.

Bron trained in Wellington and started her nursing career in the Adult and Emergency ORs at Auckland City Hospital, working there for 20 years, including being Charge Nurse Floor Coordinator for 12 years. In 2015 she coordinated the set-up and operationalisation of the hybrid OR and the following year she moved to radiology, initially as the Interventional Radiology Coordinator, before being seconded to the Radiology Charge Nurse role for eight months. In 2018 she took up the role of Nurse Consultant for Āhua Tohu Pōkangia | Perioperative Directorate. She has been in her current position of Whakahaere Nāhi | Associate Nurse Director since September 2019, initially with an education, training and workforce development focus and for the last year has been working with the Anaesthesia Preadmission Service, Acute Pain Service and Patient Blood Management teams.

Bron is the New Zealand representative for the Australasian Definitive Perioperative Nurses Trauma (DPNTC) Course and has directed and taught on the New Zealand course annually since its introduction in 2004. She also has a keen interest in further education and completed a Masters in Nursing in 2020 through the School of Nursing at the University of Auckland. Her thesis focussed on safe nurse staffing in the OR.

To contact Bron please use dissector.editor@gmail.com

Auckland/Northland – Gillian Martin, RN, PG Dip Health Sciences

Originally from England, Gill first trained as an Enrolled Nurse undertaking hospital-based training then retrained at University of Nottingham as a Registered Nurse.

Gill has more than 40 years' nursing experience gained working both in New Zealand and in UK. Her area of expertise is Radiology Nursing including Interventional Radiology. She has lived in New Zealand for more than 20 years and has been Radiology Nurse Specialist at Te Toka Tumai for more than 15 years, with experience in all radiology modalities.

Over the years , Gill has seen many changes in radiology and considers "radiology to be taking over surgery, one procedure at a time."

In her role as Nurse Specialist, she is responsible for the Quality and Improvements aspects of Radiology Nursing, which involves the writing of policy, procedures, guidelines and protocols for Radiology Nurses. She is also involved in education with student nurses and with Medical Imaging Technology students at University of Auckland, giving them an insight into radiology encounters for their patients and the nursing care they receive. She is committed to the enhancement of quality in patient care through expert knowledge, advanced nursing practice and dedication to a model of nursing that has a patient centred focus. Gill has gained her Post Grad Dip Health Sciences (Advanced Nursing) from University of Auckland and is Vascular Access Board Certified (USA).

Gill is an active member of the Perioperative Nurses College of the New Zealand Nurses Organisation (PNC NZNO), being one of the first Medical Imaging nurses to join in 2010. She was quickly asked to join PNC's Auckland and Northland Region Committee. She

Left to right: Karen Prendiville, Jan-Marie Wilson and Emma Lineham.

is now the National Committee representative for this area, is the lead for the Professional Practice Committee for PNC and served as a member of *The Dissector* Editorial Committee from 2020 to 2024.

Gill has three passions, her family, her football team (Manchester City) and Radiology Nursing.

To contact Gill, please click gmartin@adhb.govt.nz

Ruahine Egmont - Karen Prendiville RN

Karen trained at Taranaki Polytechnic in the late 1980s. Post-graduation she worked at Wellington Public Hospital and briefly at Waikato Hospital before travelling overseas and eventually settling in Northern California. She worked at University of California San Francisco UCSF and SF General Hospital SFG in San Francisco City in Acute and Chronic Dialysis, Plasma apheresis and Stem Cell harvesting for a little over 10 years.

She returned to New Zealand in 2004 and spent 12 years in ICU and then more recently the last six plus years in Radiology. She is now also working in a senior nurse role as a Duty Nurse Manager and Patient at Risk Nurse, while still working in Radiology as a PICC inserter and managing patients referred for Uterine Fibroid Embolization, all at Taranaki Base Hospital.

When Karen started in Radiology she was introduced to PNC by a senior colleague and became an active member of the Ruahine Egmont Region of PNC NZNO. During this time she became the Regional Chairperson and National Committee Representative and Medical Imaging Nurses New Zealand (MINNZ) Liaison.

Karen continues to challenge herself with expanding her knowledge and skills in the Radiology Department. She has been fortunate to attend the past three National PNC conferences, which have inspired her to work even harder and smarter in her nursing career to provide the best and current practice to all those she cares for.

To contact Karen, please click karenprendiville@yahoo.com

Hawkes Bay/Te Matau a Māui - Jan-Marie Wilson, RN

Jan-Marie is a Registered Nurse who works full time at Te Whatu Ora Hawke's Bay. She has been working at Te Whatu Ora Hawke's Bay for 14 years in the Perioperative Unit as a theatre nurse. She has worked in all specialties and is currently working in the Orthopaedic Specialty which she is very passionate about. At present she works 0.6 FTE as the Clinical Nurse Coordinator of Acutes, and 0.4 FTE as an Expert Level RN in theatre.

Jan-Marie joined PNC Hawke's Bay Region 14 years ago. She has held the position of Secretary and has been PNC Hawkes Bay Regional Representative for the last three years. She holds the Awards Portfolio for PNC. The role and responsibility for the Awards Portfolio is to make contact with all sponsors of the annual awards, asking for ongoing sponsorship and requesting funds. These Awards are available on our PNC Website and are kept updated.

The winners of the Awards are announced at our PNC AGM.

Jan-Marie also organises the Power Point, certificates, judges, and company reps to present the Annual Awards.

To connect with Jan-Marie, click wilsonjanmarie@yahoo.com

Wellington - Amber Cox, RN, BN, PG Cert. Anaesthetics and Recovery Room Nursing, Graduate Diploma of Nursing Clinical Teaching & Assessment

Amber has 23 years of peri-anaesthesia nursing experience, spanning Melbourne, Sydney, London and now resides in Wairarapa with her husband and three children.

Over the years Amber has worked as a Clinical Quality Facilitator and Clinical Nurse Specialist. She currently works as Perioperative Nurse Educator at Wairarapa Hospital.

She has a keen interest in simulation training, teamwork, communication and advancing nursing roles in peri-anaesthesia care. Amber has been a member of the Perioperative Nurses College since arriving in New Zealand 12 years ago.

"I believe it is vital for every nurse to be a member of their professional affiliation, for me, this means being a member of PNC," she says,

"I am proud to represent Wellington Region and enjoy constructing study days for perioperative nurses".

Amber invites any PNC members across the Wellington region to join the Wellington Committee and encourages all NZNO members working in the perioperative nursing specialty to join the PNC.

Contact Amber at amber.cox@wairarapa.dhb.org.nz

Canterbury West Coast/Nelson Marlborough - Emma Lineham RN, PG Dip.

Emma Lineham is a registered nurse working at Christchurch's Burwood Hospital operating theatre, which specialises in orthopaedic and plastic surgery.

Emma has recently submitted her Masters in Heath Practice, focusing on intraoperative briefing and debriefings. Emma is new to the National Committee but excited for the opportunity to work alongside the other national committee members. Emma's portfolio is Submissions.

To connect with Emma, click Emma_Lineham@yahoo.co.nz

Otago/Southland – April-Lily Sule RN, PG Dip

April trained at Otago Polytechnic in 2017. After graduating in 2019 she started her nursing career at Dunedin Public Hospital in the main operating theatres. Beginning her career during the 'Covid-19 Pandemic' provided its challenges.

April has a passion for education and after graduating jumped straight into post-graduate studies. She currently has a postgraduate diploma and has plans to finish her master's in advanced nursing practice.

During her studies she became the clinical nurse coordinator for elective orthopaedic surgery at Dunedin Public. She was introduced to PNC in her post-graduate year and has been an active member in the Otago Region since. She has now joined the National Committee and takes care of the membership portfolio.

Connect with April by clicking aprillily123@hotmail.co.nz


April Lily

BEYOND BORDERS: Charting New Vistas in Endoscopic Vein Harvest

A Journey from Stony Brook to Waikato

By Jacque Roberts, Kelsey Abercrombie & Georgia Miller

Abstract Jacque Roberts and Kelsey Abercrombie are Registered Nurse First Surgical Assistants (RNFSAs) in cardiothoracic surgery at Te Whatu Ora Waikato. They made the journey to United States of America to observe endoscopic vein harvesting (EVH) for Coronary Artery Bypass Surgery (CABG). This article describes their journey and experiences while travelling to Stony Brook University Hospital (SBUH) and how they plan to translate this new knowledge into their own clinical learning and developing an EVH programme in the Te Manawa Taki region.

Background:
Jacque Roberts and Kelsey Abercrombie, Clinical Nurse Specialists, serve as Registered Nurse First Surgical Assistants (RNFSAs) in cardiothoracic surgery at Te Whatu Ora Waikato. As integral members of a three-person team, they guide cardiac patients through the perioperative journey. This encompasses preoperative and postoperative interactions with patients and their families, offering education, discussing recovery expectations and monitoring wound healing.

In the operating theatre, they play a crucial role providing continuous patient support during the induction of anaesthesia, positioning, preparation for surgery and assisting in cardiac surgery. Particularly, they are responsible for conduit harvesting for patients undergoing CABG.

Reginald Arcilla (Getinge Cardiac Surgery Territory Manager) and Jacque Roberts learning EVH on Leg model at Stoney Brook Hospital.

Introduction
In the evolving landscape of CABG surgery, the quest for refining techniques and optimising patient outcomes is a continuous journey. In New Zealand, CABG has been a commonly performed procedure since the 1960s, with blood vessels from the body being used as vital conduits for redirecting blood flow around compromised coronary arteries.

The saphenous vein in the leg, a conduit often enlisted in this procedure, has traditionally undergone endoscopic vein harvesting at Te Whatu Ora Waikato. The introduction of EVH surfaced internationally in the mid-1990s. This revolutionary approach has not only minimised incision lengths from a full leg to a mere 3 cm scar but has substantially reduced postoperative leg wound pain, reduced healing surface area and enhanced aesthetic appeal.

In 2023, a business case was presented to the clinical committee team at Waikato Hospital. The implementation of CABG surgery EVH using the cutting-edge Getinge Haemopro products was supported.

As the RNFSAs are a permanent fixture in the cardiothoracic

Open vs. Endoscopic Vein Harvesting (OVH v EVH). Images courtesy Getinge 2023. www.getinge.com/za/products-and-solutions/cardiovascular-procedures/endoscopic-vessel-harvesting/

theatre, EVH has the best opportunity to flourish. Having completed the Getinge EVH education and reviewing data from trials, articles and videos, the RNFSAs thought it would be beneficial to see this procedure in action. A collaborative effort, orchestrated by Mr. Zaw Lin, cardiothoracic surgeon, led to a week-long immersion at New York's Stony Brook University Hospital (SBUH), where the team had the privilege of observing and learning first-hand from their counterparts in New York, solidifying their commitment to elevating cardiac surgery standards in Waikato.

Stony Brook University Hospital

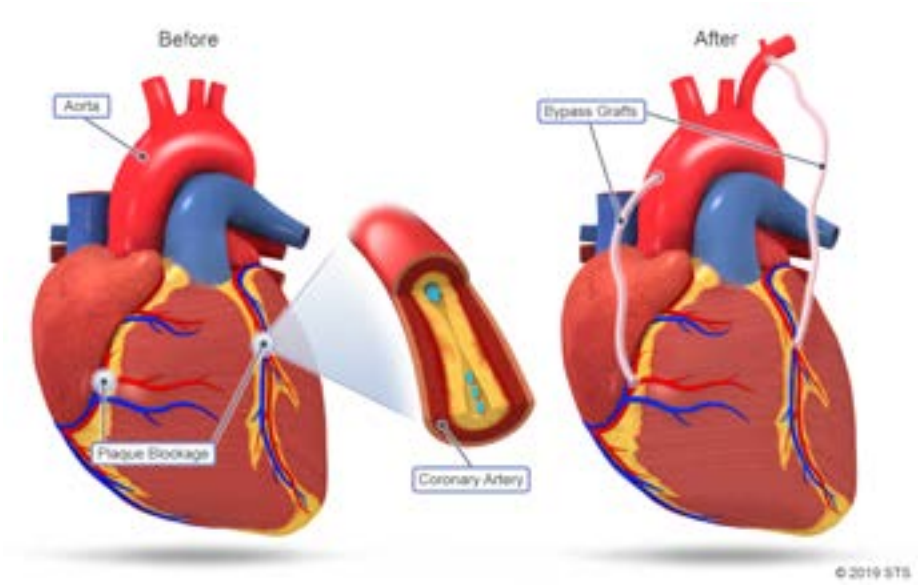
The opportunity to observe EVH in New York started with Mr Zaw Lin reaching out to a colleague from Waikato Hospital, Mr Kumar, a senior cardiacthoracic surgeon at SBUH. Through this contact, they were able to secure a week's observation visit to SBUH, New York.

SBUH is Long Island's premier academic medical centre. With 624 beds, it serves as the region's only tertiary care centre and regional trauma centre and is home to the Stony Brook University Heart Institute (SBUH l, 2023). The cardiothoracic surgery division at Stony Brook Heart Institute is a leader in cardiovascular care, offering advanced and comprehensive treatments for diverse cardiac conditions. The division excels in both traditional and minimally invasive techniques, performing CABG, valve surgery, transcatheter aortic valve replacement and more.

Renowned for high-risk patient care, SBUH has consistently been recognised among America's best hospitals for cardiac surgery and care.

The RNFSAs and Mr Lin travelled to New York in late November, 2023. At SBUH they had several opportunities to observe EVH in the operating theatre, gaining first-hand experience with the layout of equipment, how to assemble the consumable equipment and understand patient positioning tips and tricks. Witnessing the surgical procedure and interacting with the surgical team, especially the Physician Assistants (PAs), deepened the RNFSAs understanding of the intricacies involved with EVH in cardiac surgery.

Whilst in the hospital, they had the opportunity to work alongside the Getinge USA medical representative who guided the RNFSAs through EVH using the Vasoview Haemopro consumable kit on a plastic leg model. This gave them a chance to experience the dexterity required with using this endovascular piece of equipment. The remainder of the week was spent observing cases where veins were harvested from both male and females with different physiques and different PAs harvesting to give a broad overview of the harvesting technique. Additionally, the RNFSAs had the chance to visit patients on the ward post-operatively, observing their recovery in the comfort of well-designed single-bedded rooms. This experience allowed them to see the direct impact of EVH on patient care and recovery.



Coronary artery bypass grafting (CABG) on heart. Before Surgery and after CABG surgery. The Society of Thoracic Surgeons. (2019, May). Coronary Artery Bypass Grafting (CABG). The Patient Guide to Heart, Lung, and Esophageal Surgery. https://ctsurgerypatients.org/procedures/coronary-artery-bypass-grafting-cabg

Understanding Coronary Artery Bypass Grafting surgery

CABG stands as a pivotal surgical intervention in the context of Coronary Artery Disease (CAD), the most prevalent form of heart disease affecting more than 170,000 individuals in New Zealand and serving as a primary catalyst for heart attacks and angina (Heart Foundation, 2023).

CAD arises from the progressive accumulation of atherosclerotic plaque within the coronary arteries, leading to a compromised blood supply to the heart muscle. CABG addresses the burden caused by plaque build-up by establishing alternative pathways known as bypass grafts using veins or arteries. Surgeons graft these conduits onto the coronary arteries, creating a detour that enables oxygen-rich blood to bypass blockages and reach the heart muscle seamlessly.

Where to now?

While the team eagerly await the Getinge proctor to visit the unit, they are busy preparing patient education leaflets, data collection strategies and in-services to update staff on what to expect for the patients who undergo EVH as part of their CABG procedure.

"Endoscopic vein harvesting is technically challenging and requires new psychomotor skills that differ from those needed in traditional open vein harvesting." (Krishnamoorthy et al. 2016). This will impact not only the RNFSAs but also the rest of the surgical team. The trip to SBUH has fostered a professional working relationship with the team offering their support and guidance to help navigate the learning curved associated with a new surgical skill like EVH. In time, the RNFSAs hope to support and collaborate with other New Zealand centres that wish to establish EVH.

A special thanks to the Waikato and Bay of Plenty Heart Trust who supported our trip to SBUH with a generous contribution towards flights and transport. The Heart Trust, established in 1976, is an incorporated charitable trust dedicated to improving the quality of life of heart patients living in the mid North Island. They play a huge role in generating future capabilities and tapping into new technologies for the provision of innovative cardiac services at Waikato Hospital (Waikato Heart Trust, n.d).

About the Authors

Jacque Roberts *started training to be a Registered Nurse First Surgical Assistant (RNFSA) Waikato Hospital Cardiothoracic department under the supervision of Professor Adam El Gamel in 2010, completing her Post graduate Diploma in Advanced Nursing in 2012. Initially harvesting conduit, great saphenous leg vein progressing to radial harvest and assisting with all cardiac surgery cases.*

Kelsey Abercrombie *joined the team at the end of 2013 whilst Jacque was on maternity leave. She has since completed her Masters of Nursing through the University of Auckland focussing on the pivotal role the RNFSA plays in theatre.*

Georgia Miller *was the final piece of the RNFSA team joining in 2019. Completing her Post graduate Diploma in Advanced Nursing in 2020. She is currently on maternity leave.*

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Co-authors Kelsey Abercrombie and Jacque Roberts.

Christchurch leads NZ in Endoscopic Vein Harvesting for coronary artery bypass surgery

By Rebecca Porton-Whitworth

Abstract There has been an increase in the use of arterial grafts over time, but the greater saphenous vein (GSV) graft remains one of the most common conduits used in coronary artery bypass grafting (CABG). In more recent years, less invasive techniques for vessel harvesting have been gaining interest, with endoscopic vein harvesting (EVH) claiming to reduce postoperative pain, incidence of wound complications, length of hospital stays and eliminating large longitudinal surgical incisions created by traditional methods of vein harvesting. EVH is a procedure used to harvest the GSV by making a small incision and using an endoscopic camera with a blunt dissector to create a subcutaneous tissue tunnel under the skin.
Keywords Endoscopic vein harvesting, greater saphenous vein, coronary artery bypass grafting, quality innovation.

Introduction

Throughout the world CABG using the long saphenous vein as a conduit is one of the most common cardiac surgical procedures performed to treat ischaemic heart disease (Akowuah et al., 2021). Over the past decade EVH has been widely used throughout the world as the method of choice to harvest the GSV (Mahmoud and Widrich, 2023; Zingara et al., 2019). Along with the internal mammary and radial arteries, the GSV is a commonly used conduit due to its ease of harvesting and its length especially in patients requiring multiple CABG surgery.

Throughout New Zealand (NZ) cardiac centres still harvest using the conventional open or direct vision technique. This involves a long linear skin incision that can run the length of the leg — unfortunately with a high incidence of wound complications and pain, resulting in increased hospital length of stay and readmission (Akowuah et al., 2021).

In 2023, following a successful quality initiative business proposal, Te Whatu Ora Waitaha Canterbury was the first cardiac unit in NZ to establish an endoscopic training proctor mentored programme.

History of Endoscopic Vein Harvesting

In the mid-1990s, steps were taken to reduce the impact of the saphenectomy wound with the introduction of EVH (Akowuah et al., 2021). The procedure took a long time due to the steep learning curve, but results were promising with early discharge from hospital and excellent patient satisfaction with low complication rates (Akowuah et al., 2021).

Other minimally invasive harvest techniques, such as bridging, require approximately three or four small incisions in the thigh and in the lower leg to harvest the complete vein, leaving bridges of intact skin and tissue. This offered smaller incisions but took longer to open, harvest and close than EVH.

EVH was still a superior technique with regards to hospital length of stay and wound complications (Akowuah et al., 2021). This less invasive technique reduces pain, improves wound infections, wound complications and readmission rates. In 2015, the Society of Minimally Invasive Cardiothoracic surgery agreed that EVH should be the standard of care for saphenous vein harvesting (Akowuah et al., 2021).

EVH graft patency and clinical outcomes

Early studies such as the PREVENT IV trial and the Randomized On/Off Bypass (ROOBY) trial showed an increase rate of vein graft failure by 46.7% when the conduit was harvested endoscopically compared to 38% via open vein harvest and an increased risk of myocardial infarction and repeat revascularisation (Akowuah et al., 2021). Neither of these trials were designed to examine the effects of EVH on graft patency and the harvesting technique was in its infancy (Akowuah et al., 2021).

The hazard ratio for death alone was 1.52, leading the National Institute for Clinical Excellence (NICE) to recommend that EVH was only undertaken by units offering this service and patient consent was required for EVH (Akowuah et al., 2021).

During this time real world studies including over a quarter of a million patients refuted these findings, with no long-term survival

difference among both groups of patients, though there was still some concern around long term vein patency (Akowuah et al., 2021).

Although long term patency of conduits harvested by EVH have been questioned, many studies show that EVH versus open technique have similar patency rates, however there is a learning curve required when learning how to harvest vein via EVH (Akowuah et al., 2021; Mahmoud and Widrich, 2023). In 2014, NICE published guidance supporting the use of EVH in the United Kingdom (Akowuah et al., 2021).

Benefits and Risks

Multiple randomised and observational studies have highlighted the advantages of this technique in in-hospital pain reduction, wound infection and length of hospital stay (Akowuah et al., 2021). Meta-analysis indicates there is nearly a five times reduction in the incidence of wound infections with long-term follow-up highlighting reduced vein graft patency, without resulting effects on recurring angina, repeat revascularisation, major adverse cardiac events or mortality (Akowuah et al., 2021). Return to normal activities of daily living post-surgery is much quicker compared with open vein harvesting, with follow-up at two years highlighting higher quality of life scores for physical health (Akowuah et al., 2021).

Quality Innovate Business proposal

In 2021, a business proposal was submitted by the cardiothoracic surgical unit at Te Whatu Ora Waitaha Canterbury, requesting new equipment to be able perform EVH. Included in the proposal was a teaching plan, patient selection, equipment required, benefits to the patient and target reduction in readmissions.

The aim was to reduce patient's length of hospital stay and decrease the number of outpatient appointments for wound care issues, dressings and district nursing visits. Additionally, it was expected to improve quality of life for patients by having a smaller incision and reduce social and psychological trauma due to less visible scarring.

Prior to purchasing an EVH system, different non-disposable and disposable vein harvesting systems were reviewed, with the Getinge Vasoview Hemopro 2 system selected. Asset management included purchasing a dedicated laparoscopic tower, increasing the vein harvesting sets, camera and light leads, the Vasoview power machine and Vasoview HemoPro 2 system consumable items (Awadalla et al., 2021)

Anatomy

The longest vein in the body is the GSV, emerging from the dorsal foot veins and running anteriorly to the medial malleolus (Mahmoud and Widrich, 2023). It then continues up the medial side of the leg along the tibial side of the calf, beside the tibia up to the knee, continuing posterior up the leg medial to the knee, curving behind the medial femoral condyle (Mahmoud and Widrich, 2023). Above the knee it positions more medially through the medial aspect of the thigh, before draining into the common femoral vein at the saphenofemoral junction. It runs in a superficial plane to the muscles and deep fascia with the saphenous vein nerve running along the vein in the lower two-thirds of the leg. Due to this orientation it makes the leg susceptible to injury, pain and paraesthesia postoperatively (Mahmoud and Widrich, 2023).

Vein mapping and patient positioning

Prior to EVH in the operating theatre, a non-invasive bedside venous doppler mapping is performed to provide crucial information regarding the location and quality of the vein (Figure two). The vein course is followed, and both of the patient's legs are marked with a surgical marker. The patient is positioned in a supine position for usual CABG intervention with the legs externally rotated and the knee flexed at a 90-degree angle between the thigh and the leg (frog legs) (Zingaro et al., 2019). Gel and foam pads are used to maintain the angle behind the knee and thigh.

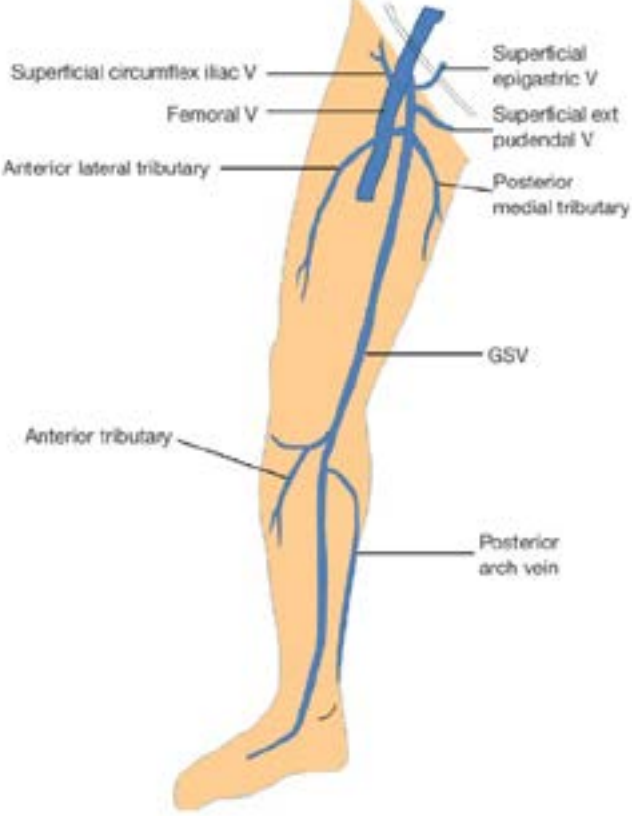

Figure one: Anatomy of GSV (Baliyan, 2016).

Theatre Room setup and Equipment

Figure two: Locating the vein (Getinge, 2023).

The theatre room layout and set up is dependent on several factors such as: where the harvester will stand, which leg is being harvested and which side of the patient the perfusion machine and perfusionist stand. See figure three which highlights the different layouts including where the harvester can stand and where the tower needs to be positioned.

The equipment required is a laparoscopic tower with a camera box, video monitor, light source and fibre optic cable, camera,

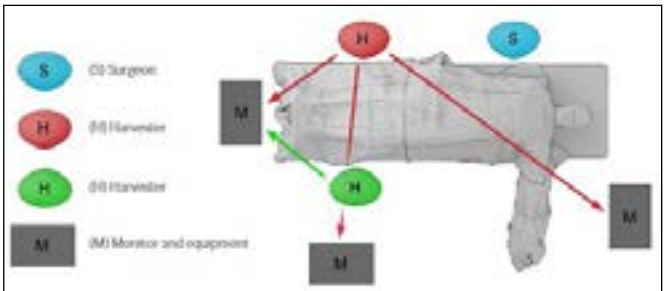

Figure three: Theatre room setup (Getinge, 2023).

insufflator and insufflator tubing and carbon dioxide (CO^2) source. The Maquet Vasoview Hemopro power supply can also be added to the tower (Figure Four). It requires a sterile extension cable to be connected to the machine. Consumable items include the leg harvesting trolley, set up with the addition of the Vasoview Hemopro 2 endoscopic vessel harvesting disposable system and the 7mm extended length telescope (Figure Five).

Nursing Considerations

Figure four: Vasoview Hemopro Power supply (Getinge, 2023).

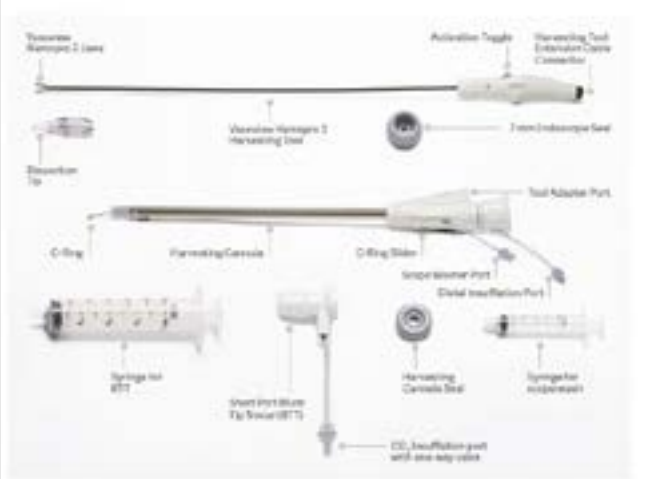

Figure five: Vasoview Hemopro 2 Endoscopic vessel harvesting system (Getinge, 2023).

Operating theatre nursing staff play an integral part in EVH. They need to understand the steps in the procedure and the instrumentation and the equipment. Before a case the circulating nurse needs to ensure the laparoscopic tower is in the correct position and turned on. Once the cords are handed off by the sterile team, the camera, light cable, carbon dioxide (CO_2) tubing and Hemopro 2 Extension cable need to be connected. The Maquet Hemopro power supply is set at the standard setting of 3, as recommended by the company. The CO_2 settings are set between 10-12mmHg with a flow between 3-5 L/min.

Positioning gear needs to be prepared and available to help the surgical team when they are marking the leg prior to surgical prepping and draping the patient. The disposable components of the Vasoview Hemopro 2 EVH system are not opened until the surgeon has gained surgical access.

Endoscopic Vein Harvesting

To harvest the vein, a longitudinal skin incision about 1-2 centimetres is made on the medial side of the leg above the knee at the internal margin of the gastrocnemius muscle (Figure six) (Zingaro et al., 2019). The subcutaneous tissue surrounding the GSV is dissected. The vein is hooked with a silicone sling and dissected from the connective tissue. The surrounding tissue is also dissected 2-3 cm towards the thigh creating a tunnel to allow easy access of the endoscopic telescope (Zingaro et al., 2019). This can be performed by a cardiothoracic surgeon or a trained cardiothoracic registered nurse first surgical assistant.

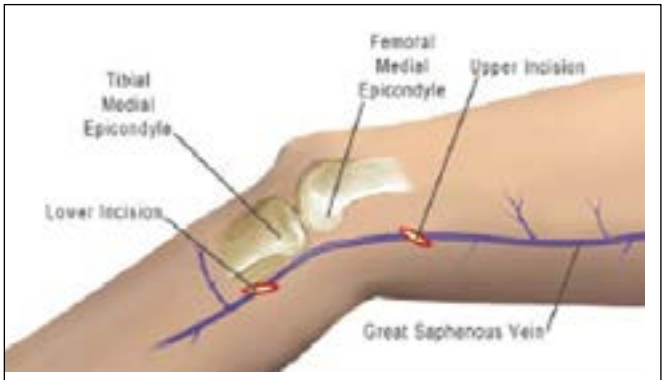

Figure six: Commonly used incision sites for EVH

The dissection tip is attached to the end of the 7mm extended length endoscope and inserted into the incision to visualise the vein and surrounding tissue on the video monitor screen (Figure seven) (Getinge, 2023). The short port blunt tip trocar (BTT) is advanced into position and the CO^2 gas is turned on to help create a tunnel (Figure eight). CO^2 is run at a flow rate of 3-5L/min and at a pressure of 10-12mmHG. Anterior, posterior and branch blunt dissection is performed with the dissection tip (Figure nine) (Getinge, 2023). The

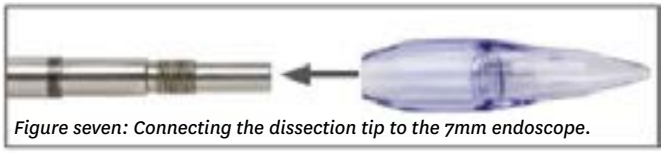

Figure seven: Connecting the dissection tip to the 7mm endoscope.

Figure eight: 7mm extended endoscope and blunt port (Getinge, 2023).

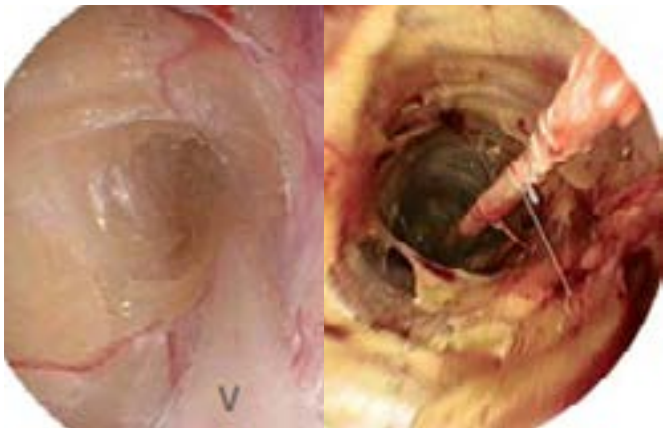

Figure nine (left) : View of the tunnel and the GSV before and after tunnelling. Figure ten (below): Vasoview Hemopro 2 harvesting tool - dissection of side branch and C ring protecting the vein graft (Getinge, 2023). Below: The author, Rebecca Porton-Whitworth, learning endoscopic vein harvesting.

goal is to delineate a tissue plane for easier dissection and to maintain the tunnel by dissecting subcutaneous and connective tissue from the saphenous vein (Getinge, 2023). The CO^2 insufflation helps aid the dissection by enabling visualization, reducing bleeding and maintaining a working space.

After dissection the dissection tip is removed, and the Vasoview Hemopro 2 harvesting tool is inserted through the tool adaptor port. The device has four lumens which house the washer tube, distal lens, sealing tool and a C-ring which is designed to protect the main conduit and expose branches (Getinge, 2023). The device is used to seal and transect any vessel branches in a single step by pulling the activation toggle, and can be inserted, removed, rotated and extended from the main harvesting tool. It is powered by direct current set to 3 on the Vasoview HemoPro machine and cuts and seals through heat and pressure (Figure ten). The CO^2 is still used during this time to enhance the view. The C-ring is deployed at the end to run the vein checking the vein is free and there are no side branches attached. To remove the vein a stab incision is made over the distal end of the tunnel and the vein ligated and removed (figure eleven) (Getinge, 2023).

Potential Risks

During the procedure there is the potential to traumatise the vein if the blunt conical dissecting tip is not in the correct tissue plane. The adventitia of the vein could be stripped, or the vein perforated, small side branches could be avulsed instead of pushed aside (Akowuah et al., 2021). Another potential risk is that the ligating Vasoview Hemopro 2 energy source may generate thermal damage to the vein or side branches divided too close to the vein (Akowuah et al., 2021).

Conclusion

Endoscopic vein harvesting has been adapted around the world due to decreased rates of wound complications, compared with open surgical technique and has now been introduced in NZ. There is an associated learning curve with learning a new technique however overall it leads to a significant cost-benefit by reducing wound complications, improving early ambulation and patient discharge.

Figure eleven: Harvest completed with GSV extracted via below knee incision and an above the knee incision (Getinge, 2023).

About the Author ***Rebecca Porton-Whitworth*** *RComp, BHSc, MNurs (Hons) has worked extensively within the perioperative environment in a variety of specialties and roles for the past 30 years. Her favourite specialty is cardiothoracic where she has worked in both the paediatric and adult acute and acquired congenital. She is currently working as a RNFSA and Clinical Nurse Specialist in Cardiothoracic Theatres at Christchurch Public Hospital. She has been a highly valued member of The Dissector Editorial Committee since 2019.*

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Physiological Impact of Tourniquet Use

By Anna Laurenson

Abstract Pneumatic tourniquets are a valuable surgical intervention, aiding in bloodless operative fields, reducing blood loss and improving visualisation during surgical procedures. However, their optimal use within the operating theatre remains a subject of debate. This article presents a current literature analysis of pneumatic tourniquet utilisation, focusing on the risks and benefits and nursing implications.
Keywords Tourniquet, physiology and systemic blood circulation, nursing implications

Introduction

Similar to many surgical innovations, tourniquets were initially designed as a simple intervention to stop bleeding and sustain life on the battlefield. Evidence of their use dates back to the second century (Khan & Gray, 2014). Within this article pneumatic tourniquet use during surgery will be explored, including what impact tourniquet application has on the normal physiology of the systemic circulatory system and bleeding. Literature on tourniquets will be analysed, including the risks and benefits of tourniquet use and nursing implications discussed.

Physiology of blood circulation and clotting factors

Circulation is a physiological process without which human cells would be unable to receive and dispatch the materials and wastes required for their function and survival (Patton & Thibodeau, 2019). Kivov (2021) describes the circulatory system as functioning by a one-way continuous circuit comprising the heart, lungs and blood vessels. The heart pumps blood into arteries which flows from the arteries into the arterioles and capillaries. The blood flows from the capillaries to the heart and lungs via the venules and veins (Kirov, 2021).

Blood is the transport medium that circulates through the arteries and veins of the body. Whole blood consists of plasma, erythrocytes (red blood cells), leucocytes (white blood cells), and thrombocytes (platelets). It makes up approximately eight percent of total body weight (Patton & Thibodeau, 2019). Blood vessels are the network of tubes that allow blood to be transported around the body. Components of the blood vessel wall are endothelial tissue lining, collagen and elastic fibres and smooth muscle.

Endothelial tissue facilitates continuous blood flow and prevents blood sticking to healthy vessel walls. Collagen fibres provide structure that keeps the vessel lumen open, while elastic fibres and smooth muscle allow constriction and dilation to support blood pressure (Patton & Thibodeau, 2019).

If a blood vessel is injured, bleeding will occur. If the injury is minor, the body will carry out a multistep process called haemostasis to prevent excessive blood loss. The process consists of coagulation of blood, constriction and narrowing of the damaged vessels and sending platelets to the injury site which stick together and form a 'plug' (Ignatavicius, Workman, Rebar & Heimgartner, 2021).

Damage to blood vessels caused by surgery may be too extensive for the body to repair with these mechanisms. Measuring blood loss in the Operating Theatre (OT) relies on visual estimation and thus has a large margin for error depending on how much blood is collected in suction cannisters, sponges, swabs, on drapes or spilled on to the operating table or floor. (Khan et al., 2021). Nagelhout & Plaus (2017) claim the error margin of estimated blood loss in the OT to be 70% underestimation and 30% overestimation. Therefore, it is imperative that the OT team implement interventions such as pneumatic tourniquet use to minimise blood loss in the first instance.

Pneumatic tourniquet usage in the Operating Theatre

A pneumatic tourniquet is a piece of equipment designed to interrupt normal circulation by reducing blood flow to a limb during surgery. It consists of a wrap-around inflatable cuff, an electronic pressure device, a timer and connective tubing.

When the tourniquet cuff is inflated with the pressure device, the limb arteries are occluded and therefore systemic circulation and bleeding proximal to the tourniquet are prevented or minimised (Nagelhout & Plaus, 2017). It is applied to the part of the limb with the most fat and muscle tissue, such as the upper thigh, and should be distal to the surgery to reduce contamination risk (Wong & Irwin, 2012).

A common example of pneumatic tourniquet use is during total knee arthroplasty (TKA). The tourniquet will either be inflated for the entire surgery, or just prior to the application of orthopaedic implant cement. The latter option is to help provide a clean, dry

... it is imperative that the OT team implement interventions such as pneumatic tourniquet use to minimise blood loss in the first instance.

bone surface to which the cement may adhere.

A study by Hedge et al,. (2021) found tourniquet use improved cement bone penetration and provided superior implant fixation when compared with non-tourniquet TKA. In contrast, studies by both Molt et al,. (2014) and Lu et al,. (2020) found tourniquet use offered no significant improvement in TKA cement and implant adherence.

Research by Singh et al,. (2022) found pneumatic tourniquet use reduced intraoperative blood loss significantly during TKA and resulted in higher postoperative haemoglobin levels. However, they also found that by day three, postoperative blood loss was higher in the tourniquet group, suggesting that overall perioperative blood loss was similar with or without tourniquet use (Singh et al,. 2022).

A bloodless operating field is advantageous for both the surgeon and patient. It minimises intraoperative blood loss, supports accurate tissue dissection, allows identification of vital anatomical structures and hastens surgery (Phillips, 2016). While beneficial, pneumatic tourniquet use does not come without risks. Complications include pain, nerve injuries, chemical burns, pressure injuries, compartment syndrome, tissue damage or necrosis and deep vein thrombosis (Spruce, 2017).

Pneumatic tourniquets have also been shown to harbour pathogens. Sahu et al., (2015) undertook analysis of culture swabs taken from 16 tourniquets in an Indian tertiary hospital. They found examples of both colonised bacteria and fungi, including *Candida*, *Pseudomonas*, *Staphylococcus aureus* and *Methicillin-resistant Staphylococcus aureus*. They attribute *Staphylococcus* bacteria as the most prevalent pathogens responsible for deep wound infections. This potential complication may be mitigated by fastidious cleaning and decontaminating of tourniquets in between patients, (Sahu et al., 2015).

Current evidence-based best practice is to limit tourniquet use to the shortest time possible, with a maximum continuous inflation time of two hours. If use must be extended, a 15 minute deflation period is required to allow tissue reperfusion and prevent muscle ischemia and nerve damage (Pneumatic Tourniquet Use, OR 2021). After 30 minutes of tourniquet time, the patient's heart rate and blood pressure will begin to elevate due to pain. Deepening anaesthesia and increasing the intravenous opioid dose does not appear to relieve this pain. Anti-hypertensive and beta-blocking drugs can be administered to control tourniquet related hypertension and tachycardia (Wong & Irwin, 2012).

Post-operative pain is a common challenge involved with pneumatic tourniquet use. A review conducted by Ahmed et al. (2020) established that patients who underwent TKA with the use of a tourniquet had a pain score 12.5% higher on postoperative day one, compared to those where a tourniquet was not used. Research by Ejaz et al., (2014) also established that post-operative pain levels were higher for TKA patients when a tourniquet was used intra-operatively as opposed to non-tourniquet use. The tourniquet group had higher opioid morphine requirements and noticeable thigh discomfort that remained for two to three weeks post discharge. Similarly, Alexandersson et al., (2019) also found that tourniquet use resulted in increased postoperative pain. However, this was only evident in the short term.

Perioperative nursing responsibility

Safety is a fundamental aspect of nursing care. Nurses are responsible for the assessment and management of patients undergoing surgery with the use of a tourniquet. To maintain a high

standard of patient care and advocacy, nurses are accountable for checking that the tourniquet equipment is at hand, functioning properly and that regular electrical safety checks have been carried out. They must ensure they are competent and confident with best practice safe tourniquet use, to prevent patient injury. To decrease surgical site infection risk, OT nurses must ensure reusable tourniquets have been thoroughly cleaned and decontaminated between patients.

Most importantly OT nurses must be familiar with the patient's medical status and history to identify potential contraindications to pneumatic tourniquet use. Contraindications include peripheral vascular disease, sickle cell anaemia, diabetic neuropathy, arteriovenous fistulas or grafts, severe infection, venous thromboembolism, surgical site malignancy, crush injury or an open fracture (Pneumatic Tourniquet Use, 2021). Accurate documentation of the tourniquet site, the person applying the tourniquet, inflation and deflation times, pressures and cuff size are also the responsibility of the OT nurse. As is notifying the surgeon of tourniquet times, especially when approaching upper time limits. If required, advocating for deflation of the tourniquet in line with best practice guidelines.

Post-operative nursing implications include managing tourniquet pain with both pharmacological and non-pharmacological treatments ("Pain Management", n.d.). Additionally, monitoring for postoperative complications such as thromboembolism and surgical site infection is important as tourniquet use increases the

risk of these complications. Nurses have a critical role in monitoring patients for surgical site infections (SSI) for 24-hours post-surgery, (Copanitsanou, & Santy-Tomlinson, 2021), which enables early recognition and diagnosis of infection. Copanitsanou and Santy-Tomlinson (2021) credit early diagnosis and prompt treatment of SSI as central to the prevention of further complications such as wound dehiscence, orthopaedic implant failure and sepsis.

Orthopaedic procedures put patients at increased risk for venous thromboembolism. Tourniquet use associated orthopaedic surgery inhibits limb circulation and generates prolonged venous stasis (Thomas, 2018). Nurses are responsible for implementing preventative interventions pre- and post-operatively, such as encouraging adequate hydration, supporting early and continuous mobilisation with range of motion exercises, applying mechanical prophylaxis such as compression devices and antiembolic stockings and administering pharmacological venous thromboembolism interventions as prescribed (Thomas, 2018).

Conclusion

Pneumatic tourniquets are beneficial for providing a bloodless operating field and improving surgical view during lower limb surgery. They are a simple acute intervention that interrupts systemic circulation and prevents operative blood loss. If used incorrectly, tourniquets have the potential to cause serious injuries to patients. Perioperative personnel must be competent and confident with their use and potential postoperative complications of tourniquet use must be monitored and treated.

As there is conflicting evidence arguing for and against the use of pneumatic tourniquets during lower limb surgeries, surgeons must consider whether the surgical advantages outweigh the potential risk of harm on a case-by-case basis.

To decrease surgical site infection risk, OT nurses must ensure reusable tourniquets have been thoroughly cleaned and decontaminated between patients.

About the Author ***Anna Laurenson*** *grew up in Christchurch. She spent most of her twenties travelling and working in hospitality. Returning home in 2016, she decided to work toward a career in nursing, completing her Bachelor's Degree at Ara Institute in 2018. After completing her final 'transition to practice' student placement in the operating theatres (OT) at Southern Cross Hospital, she was hired as a new graduate RN and completed the NetP programme. During her first years in OT she worked across general, gynae and orthopaedic specialties. She discovered a passion for orthopaedic surgery and now happily spends 90 percent of her shifts working in this area. In 2022, Anna completed a post graduate certificate in perioperative nursing with Whitireia. She loves her job and can't imagine nursing in any other environment. She particularly enjoys the teamwork, collaboration and patient advocacy aspects of perioperative nursing.*

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In 1979 the National Committee of the Operating Theatre Special Interest Section of the New Zealand Nurses Association (forerunner of the PNC NZNO) sponsored an Essay Competition. The topic was 'The Role of the RN in Theatre'. Wanganui's Anne Johnston won this competition and her essay, "An Instrument of Giving – The contribution of the Registered Nurse in Theatre" was published in the February 1980 edition of *The Dissector*, **Vol 7, No 1, pp 23 – 25. We reproduce the essay here:**

An Instrument of Giving

(the contribution of the Registered Nurse in Theatre)

BY ANNE JOHNSTON

I am a Registered Nurse working in the operating theatre. Where do I begin to evaluate my contribution? I look at myself. I look at others, at what we are and what we do.

Yes we are nurses, but we are also domestics, sorters, distributors, mechanics, mathematicians and clerics. We work with textiles, tools, tables, trolleys and patients.

'Contribution is defined as: 'a giving jointly with others'... 'having a part or share in producing'... implying an end result. How often do we see our end result? Is this why our contribution is so difficult to evaluate? I am not talking about that final stitch or clip; I am referring to the rehabilitation of the surgical patient to normal daily living.

Our contribution is a small part of that result. It is that small part on which I base my theme, in what I hope will be a provocative analysis, neither positive, nor negative; largely rhetorical.

I use the words provocative and rhetorical because I will question the extent of our contribution to nursing. I will not profess to answer the question. I provoke you, as theatre nurses, to examine your place, our place, as members of a caring profession. Are we Givers of Instruments or Instruments of Giving?

'See first that you yourself deserve to be a giver, and an instrument of giving.' [1]

I believe the 'operation' is the focus for the hospitalised surgical patient; the period when he is most vulnerable. I also believe that surgery must take place in the context of the total nursing care provided during the entire period of hospitalisation. This is the basic reason why nurses are essential in the Operating Theatre. In a multi-disciplinary environment, the theatre nurse's role is difficult to define. Areas overlap and functions merge in a teamwork contribution involving medical, nursing, technical and auxiliary personnel. The pace is fast; the tension high; conflict frequent. The clockwork 'assembly-line' of preparation, sterilisation, draping, "suction sister" and trying to shorten the 'change over' time becomes an automatic speed/efficiency pattern. But how often do we really sit back and examine the whole process? Oh, yes, we do have time. We are all guilty of justifying our quiet times. 'Why not, after last Saturday night on-call, case after case, feet pulsing, back aching, and that mountainous backlog of dirty instruments! Not a porter in sight. All that lifting and linen, not to mention the ungrateful grump dragged away from his dinner party!' What a blessing, that peaceful day, with two lists cancelled. And isn't that the day that everyone visits theatre? I need go no further... instead I ask you, should we not make time, take time, ask for time, to evaluate our contribution to nursing, to patients, and yes, to ourselves as professionals?

"… all urge is blind save when there is knowledge.

'… all knowledge is in vain save when there is work,

… all work is empty save when there is love.' [2]

I believe the contribution the Registered Nurse in theatre is her professional knowledge and caring ability. Are we exercising professional accountability? Are we using and developing our knowledge? And what of our caring ability, our skills in evaluating, attending to patients' needs?

The difficulties in obtaining skilled and experienced theatre nurses is an eternal problem. For this reason, we must be prepared to 're-think' and evaluate our contribution in economic terms. The economic use of the values and abilities we have as nurses. We have an inbuilt reluctance to hand over duties to non-skilled or ancillary workers. This is a highly controversial subject. However, there are many areas where these people with adequate in-service training, can release us to plan and develop programmes for change. Many of the arguments against the increase in auxilliary workers in theatres are the result of ill-defined and rash re-allocation of duties during acute staff shortages. Careful planning, and factual studies, would clearly identify specific areas and functions, particularly in the domestic and clerical/supplies areas.

Many past theories and subsequent decisions have not been advised or made by theatre nurses. Manpower planning is usually at a higher administrative level. But is not our apathy at least partly responsible for this?

Small groups can be very vocal, in the staff room, or 'out-the-back', but how many of us can stand up and be counted

when the important issues are decided? We need facts, we need figures, to present a strong case. Above all, we need the courage of our convictions. As professional nurses in theatre, we have the responsibility to maintain the quality and continuity of nursing care. We must not allow our standards to fall behind the advances currently being made in professional nursing.

'No man can reveal aught but that which already lies half asleep in the dawning of your knowledge.' [3]

We are all currently very involved in formulating, at a local and national level, standards of practice for Operating Theatres. What concerns me is the isolated setting in which we are working. We exist in a geographical and physical isolation, with a cut-off point at the theatre doors. It is also a specialty isolation that some seek to preserve. Professional isolation in this type of setting creates, not only role conflict, with those 'outside', but a knowledge barrier that affects our contribution to theatre nursing.

How often do your operating schedules permit you to attend hospital in-service programmes? When schedules do permit, do you attend? Do you know, or understand what is currently happening behind those barrier doors? Are you using the Nursing Process, Patient Care Plans, or evaluating the quality of care you are giving?

Have you implemented standards, staff development programmes, or appraisal systems? No? Neither have we; but we are working at it. We are reading, questioning, discussing and evaluating. I agree, it is difficult to wade through the 'gobbledygook.' (Coined from the deep throaty gobble of a turkeycock!). The language barrier is made all the more difficult because many of us ceased the academic learning process once behind the doors of a department that required concentration on practical and technical skills. A none too easy learning process, usually required in a hurry but rarely acquired in a hurry!

We need time to learn, we need people to teach. We must both to plan. We need leaders to motivate, to offer strategies for change and innovative thinking. They must come from our own ranks to understand the problems of complex relationships, the tensions and conflicts that exist in this close isolated world of ours. We need mutual understanding with our nurse colleagues. To do all this, we must break through the isolation barriers. *We* must do it. It won't happen by itself. It is time we left behind a lot of the traditional concepts in theatre which have been self-perpetuating now for many years. It will not be easy. Accepting change undermines security, but it is that security that can stagnate us. The challenge is there, but so are the rewards.

'It is well to give when asked, but it is better to give unasked, through understanding.' [4]

The beneficial effects to both patient and theatre nurse of establishing a pre-operative relationship with the surgical patient, have been well documented and substantiated by many research studies in other countries. Advance knowledge of individual patients and their needs can not only improve their nursing care in theatre, but foster staff morale, motivation and job satisfaction. The opportunity for a post-operative evaluation gives additional staff satisfaction, in witnessing the 'end result' (or part) as discussed when initially defining 'contribution'. By creating these opportunities to participate in more direct patient involvement, I believe the quality of theatre nursing must improve. It must be a more caring environment through personal knowledge of the individual, not the case, and the presence of a nurse/patient rapport.

Patients have a right to an acknowledged level of practice, which is signified by registration.

We have an obligation to them, as accountable professionals, to provide them with the highest standard of nursing care in the Operating Theatre: Our contribution in the chain of continuity.

... when you work with love you bind yourself to yourself, and to one another.'[5]

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5, … on Work, p.21

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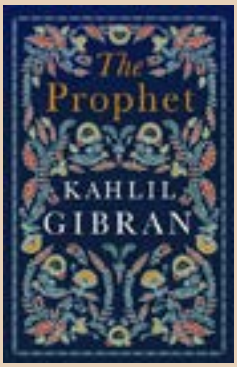

The Prophet is a book of 26 prose poetry fables written in English by the Lebanese-American poet and writer Kahlil Gibran (January 6, 1883 - April 10, 1931). It was originally published in 1923 by Alfred A. Knopf. It is Gibran's best-known work. *The Prophet* has been translated into more than 100 languages, making it one of the most translated books in history, as well as one of the best-selling books of all time. It has never been out of print.

The Tambourine Man – Alcohol, Drugs and Anaesthesia

By Catherine Freebairn

Dr Tony Diprose, an anesthetist from Hawkes Bay Hospital, delivered an informative webinar for perioperative nurses on December 15, 2023 covering alcohol and drug use in New Zealand society and the anaesthetic considerations for managing patients with substance abuse in the perioperative environment.

Tony engaged his audience with humour, introducing the subject of alcohol and drugs by their chemical structure before beginning his discussion on alcohol. Tony describes the New Zealand drinking landscape of 80% New Zealanders drinking alcohol, 25% hazardous drinkers of which 44% are male, and the volume of alcohol consumed increasing in young women. His statistics show Māori are overrepresented in alcohol related death rates.

While first demonstrating what a standard measure of alcohol looks like, Tony defines safe drinking as two alcohol drinks per week, however NZ presently consumes an equivalent of two standard drinks per day. This led to discussing societal harm due to alcohol with sexual assaults, homicides, fetal alcohol syndrome and suicides all at increased levels and interestingly, an increased risk of breast cancer for women who drink. Unsurprisingly the overall cost of alcohol related harm in NZ society is five billion more than marijuana, cocaine, ecstasy, LSD and heroin combined.

Tony covered drug abuse in society and looks at the areas around NZ where marijuana, cocaine, ecstasy, fentanyl LSD and heroin are most prevalent. The discussion was relevant to perioperative nurses providing postoperative care for patients following general anaesthesia where there is a history of drug and/or alcohol abuse, or for nurses in radiology administering sedation for radiology procedures, as there are many health consequences and contraindications to be aware of.

Tony discussed preventative measures to consider treating these patients to minimise complications associated with heart cardiomyopathies, arrhythmias, liver coagulation problems, bone marrow toxicities, vitamin B deficiencies and to protect underlying end organ damage prior to anaesthesia. He outlined clinical observations to be aware of while monitoring the patient during and post procedure, the drug interactions and contraindications.

Tony also looked at the effects of COVID lockdowns, with regards to the public's access to drugs and alcohol and the disruption to their supply chains. He also discussed some of the changes made due to the 'covid lockdowns' for example the use of Naxalone by first responders for drug overdose patients in the community. The webinar finished with take home points and discussion time for the questions at the end.

From the feedback gathered, Tony's talk was well received with over half of viewers providing evaluation for his webinar. All respondents thought the content was relevant to their practice and the presentation, Tony's knowledge and the quality of slides were very good and excellent.

Most people found the information would improve their professional practice, and nearly all would recommend colleagues watch this webinar.

To watch this webinar, please go to Recorded Webinar #7: at Perioperative Nurses College - myhealthhub.co.nz

Sepsis - Early recognition and Treatment

By Catherine Freebairn

Camilla Howard is a Clinical Nurse Specialist for Sepsis at Waikato Hospital (the first in New Zealand), and the National support coordinator for the New Zealand Sepsis Trust. In her February 14 webinar she delivered an informative talk on sepsis.

A study (Rudd, C., Johnson, S., Agesa, K., et al. (2017) found that sepsis was responsible for almost 20 percent of global deaths. The World Health Organisation (WHO) considers sepsis is under-estimated and that high-earning countries like New Zealand need to take more responsibility and support low socioeconomic countries with resources to help with its treatment. (WHO, 2023).

Camila's role with the New Zealand Sepsis Trust co-ordinates with the Health Quality & Safety Commission (HQSC) and the Accident Compensation Corporation (ACC), to deliver a national action plan providing clinical tools for recognising, treating and preventing sepsis and on-going support for survivors of sepsis.

Camilla's talk is structured around the pillars of successful sepsis management; 1, early recognition; 2, early action; 3, intervention control; 4, antibiotic refining; and 5, sepsis support.

Comparing mortality rates from delayed recognition and

treatment of sepsis against statistics from early recognition of sepsis characterises the urgency for sepsis treatment within the 'golden hour'.

With the use of graphs, Camilla briefly illustrated the Sepsis Cascade, the inflammatory response, and triggering of the immunosuppressant pathway. Examples of sepsis presentation in the perioperative environment, at the preoperative, intraoperative and postoperative level were provided.

Camilla outlined the importance of the sepsis screening tool and the red and amber risk levels, stating it a useful tool for nurses awaiting senior medical support providing an action plan for treatment called the Sepsis 6. Once again Camilla carefully explained the Sepsis 6 treatment regime of IV antibiotics within one hour, IV fluids, blood cultures, oxygen, serial lactate measurements and senior medical help.

A list of points to consider rounded off the discussion on sepsis with reference to cryptic shock where the patient's symptoms are masked by medications taken at home or from pre-hospital treatment by GP's or paramedics, rendering them normo-thermic on arrival to hospital.

Recognising post-sepsis syndrome is also important to consider due to the high incidence of survivors developing this syndrome and requiring readmission to hospital within 30 days.

Camilla provided a case study with a perioperative focus at the end of her talk, titled 'Moments of Opportunity'. She described a young female presenting to ED with increasing severity of abdominal pain and her acute deterioration over seven hours. Camilla looked at opportunities missed by hospital staff for recognising her sepsis that would have avoided an ICU admission, the trauma of delirium, and her readmission to hospital later with post-sepsis syndrome.

Closing the webinar, Camilla covered the question time well, demonstrating the depth of her knowledge on sepsis and her passion for cementing sepsis as a global health issue.

To view this webinar, please go to Recorded Webinar #8 at Perioperative Nurses College - myhealthhub.co.nz

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