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

June 2021, Volume 49, Number 1

OPERATING IN A COVID-19 ENVIRONMENT

- **Pod-life in Radiology**
- **BASIC training for Intensive Care**
- **Lockdown in Dublin**

ORGANISATION & LOGISTICS
Moving the ORs in Christchurch

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

June 2021, Volume 49, Number 1

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

Editor: BRON TAYLOR
Email: dissector.editor@gmail.com

Publisher: MICHAEL ESDAILE
Advantage Publishing Ltd
michael@advantagepublishing.co.nz
Tel: 09 416 5309 / 027 495 4510

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

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

EDITORIAL MATERIAL:
Prepared by the Editorial Committee from submitted and invited material. 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 the information. The inclusion or exclusion of any product or advertisement in no way means the Publishers or the Perioperative Nurses Colllege advocate or reject its use in any way.

CORRESPONDENCE
The Editorial Committee welcomes all correspondence intended for publication. Correspondence should be addressed to the Editor, Bronwyn Taylor:
dissector.editor@gmail.com
Or call: 027 323 2857
Please ensure the author's name, address and telephone number appears on the title page of any article or letter intended for publication.

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

editorial

Focus on COVID-19

Tēnā koutou katoa. Hello to you all. As promised, this issue of *The Dissector* has a focus on the infectious disease known as COVID-19. It is not unreasonable to say that the COVID-19 pandemic has affected everyone involved in the provision of healthcare.

COVID-19 is an acronym for COronaVIrus Disease of 2019, named by the World Health Organisation (WHO) in February 2020 (World Health Organisation, n.d.).

COVID-19 became legally notifiable in New Zealand from January 30, 2020 and the first case was confirmed on the February 28, 2020 (Jeffries, *et al*., 2020).

During the first few months of 2020, many of us spent long hours writing clinical guidelines, deciding on how best to care for COVID-19-positive patients and keeping our staff and other patients safe.

We prepared for the possibility that our hospitals would be overwhelmed with critically unwell patients by developing and implementing training, including donning and doffing PPE and the correct fit, wear and use of N95 masks.

Many hospitals developed unique and flexible ways of working so that we were as prepared as we could be. Thankfully, the New Zealand government's suppression approach has been successful, with COVID-19 community spread kept at very low or zero incidence (Jeffries, *et al*., 2020). We are slowly opening our borders with the recently opened Australasian 'bubble' and, with the staged roll-out of the Pfizer vaccine now occurring, we must now find a way to move forward into this new world where COVID-19 becomes endemic.

BASIC for nurses

The COVID-19 pandemic placed an incredible strain on intensive care globally. If the government's elimination strategy had been unsuccessful, New Zealand would not have had sufficient intensive care unit (ICU) beds to meet demand.

In this issue of *The Dissector,* Jane O'Donnell, Kirsty Taylor and Ross Freebairn describe the delivery of 'BASIC for Nurses' courses, with its online adaptation to New Zealand and Samoan Nurses during the COVID-19 readiness response over 2020.

The BASIC courses are designed to rapidly arm nurses with appropriate competencies to deliver quality intensive care.

Pod-life

In their article on 'pod-life', Rebecca Wilson and Saira Kika describe the safety measures that the team in Radiology at Auckland City Hospital designed and put in place for patients with COVID-19 precautions, outlining the challenges of establishing these protocols. They explain the development of their 'pod' rostering system for the interventional radiology team, based on a Singapore model developed during the severe acute respiratory syndrome (SARS) outbreak in 2002.

An Irish experience

Tracey Lee, New Zealand perioperative nurse and former member of *The Dissector* Editorial Committee, provides an evocative reflection on her experience working in a hospital in Dublin over the last year. Tracey provides us with an insight into what it has been like living and working in the midst of this global pandemic. Despite what must have been an incredibly challenging year, Tracey manages to stay upbeat, identifying the positives and what she has learnt. It is a reminder of how fortunate we have been in this country.

Christchurch Hospital

Highlighting the return of the 'new normal' within this country, Rebecca Porton-Whitworth's article on the recent migration and expansion from Christchurch Hospital into Waipapa Christchurch Hospital reminds us how fortunate we are that we can continue to grow and progress. Rebecca reviews the complexity of the organisational and logistical processes required to move the perioperative service into its new environments.

Annual conference

Last year's Perioperative Nurses National Conference in Christchurch was postponed due to COVID-19. Planning is well underway for this year's conference, to be held at the same venue as was scheduled last year. Our ability to meet, socialise and network is another example of how fortunate we are in this country. I do hope you can come to the conference if you are able and look forward to seeing you there.

On a final note, we are still looking for additional Editorial Committee members. If you are interested in joining us, please submit a letter expressing your interest and a copy of your CV to the PNC secretary on pnc.sec@xtra.co.nz and cc *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.

Noho ora mai

Bron Taylor, Chief Editor

References

Jefferies, S., French, N., Gilkison, C., Graham, G., Hope, V., Marshall, J., ... Priest, P. (2020). COVID-19 in New Zealand and the impact of the national response: a descriptive epidemiological study. *Lancet, 5* (11), E612-E623, Retrieved from https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(20)30225-5/fulltext

World Health Organisation. (n.d.). *Naming the coronavirus disease (COVID-19) and the virus that causes it*. Retrieved from https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-(covid-2019)-and-the-virus-that-causes-it

The Dissector

Volume 49, Number 1

INDEX TO ADVERTISERS

Touching Base

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

Changes are coming. How do you feel about that?

As New Zealand tentatively opens its borders to selected neighbours, we are all getting used to a new normal that includes the risks associated with COVID-19. Life goes on.

Change is also coming to our workforce that we may or may not expect. Thank you to all those who have completed the Survey Monkey at the end of their annual PNC registration. This was put in place in order to understand how our members are feeling about the future of our workforce in New Zealand. I will be putting all the data together and feeding this back to you all over the next few months and at our Conference in Christchurch.

What we need is for the DHBs and the Ministry of Health to recognize the value of the nursing contribution to patient care.

Little consultation

One of the largest district health boards in New Zealand has commissioned a Theatre Workforce Planning project that is developing scenarios to predict the needs of the perioperative workforce over the next 10 years.

We are all aware that in New Zealand changes made to a workforce in the main centres will filter down to the rest of the country — so this will affect all of you!

I made contact with the project manager and raised my concern that professional nursing bodies have not been adequately consulted around the professional issues that these proposed changes raise. For example, if a non-nursing healthcare professional is introduced into a post anaesthetic care unit (PACU), who is responsible for their clinical supervision? Will it be the existing registered nurses? Would you be happy to accept responsibility for the practice of a non-nursing healthcare professional?

To date, non-nursing perioperative educational pathways are being strongly developed and promoted. I have seen no evidence of communications or promotions of nursing perioperative pathways from this group.

PNC largest

Remember, we are the largest group of healthcare professionals working within the perioperative pathway. We have a proven record of flexibility; every area of patient care is well within our scope of practice. We are very much aware of the need to increase workforce numbers in our area of practice. What we need is for the DHBs and Ministry of Health to recognize the value of the nursing contribution to patient care. I am asking them to support Perioperative Nursing with a commitment to further education, monetary compensation for professional development and public recognition of the contribution perioperative nursing makes to the care of patients in New Zealand. This will go a long way towards recruitment and retention in the perioperative setting.

Register for Conference

Once again, I thank you all for your dedication and professionalism. I would love to see as many members as possible at our conference in Christchurch in October. Please go to the website https://perioperativeconference2021.co.nz. We have also established a Facebook page to open up communications between members, please join us to enjoy access to updates.

Juliet Asbery, Chair, Perioperative Nurses College

PNC Conference Registration opens

Registration for the October 7-9 annual conference of the Perioperative Nurses College of the New Zealand Nursing Organisation (PNC [NZNO]) is now open. Early bird pricing is now valid till August 27, 2021. Register at https://perioperativeconference2021.co.nz/registration

Initially scheduled for October 2020, this, the 47th Conference of the PNC [NZNO], was postponed due to the SARS-CoV-2 viral pandemic and associated New Zealand government action to suppress it last year.

So this October will mark 21 years since the PNC Conference has been hosted in the Garden City. It was November 2000 that the PNC Conference was last in Christchurch. The 2011 annual conference was scheduled there but then along came the devastating earthquakes between September 2010 and February 2011, the latter destroying the conference venue and causing the deaths of 185 people.

After all that, it is no surprise the 2021 PNC Conference Organising Committee is excited to announce that registrations are open.

The conference is being held at St Margaret's college from October 7-9.

"Why not make it a wee getaway and take some time to look around our new city. We have some amazing new eateries, bars and shops to explore," says Conference Convenor Vanessa Bacaltos

"We have been working hard behind the scenes to provide an exciting line up of speakers and are excited and proud of the amount of abstracts submitted by you our college members. With topics such as resilience, survival and determination, cultural and generational difference, to developments in practice, we hope to provide you with speakers that challenge your way of thinking and help to develop your practice. We know a lot of education has been cancelled over the last year so we hope that you can come and enjoy what we can offer," Vanessa adds.

The conference theme is Vision 20/21 and is focused on moving forward in both personal growth and knowledge.

Alongside the PNC Conference Organising Committee, Joanne Reddock of The Conference Team is taking care of administrative and commercial details. She may be contacted by telephone: 03 359 2600, or email: joanne@conferenceteam.co.nz

Bravura LSO Courses By Zoom

Bravura Education is offering two laser safety training courses in July and October. These are webinars so there is no requirement to travel. Just get on-line and go.

Course dates are **Friday July 2** and **Friday October 22** and the cost is $229. These Bravura Education courses meet AS/NZS and international standards.

The webinars are interactive, informative, and engaging. Learn efficiently and get your skills and career up and going in no time. They are a perfect refresher course if a Laser Safety Officer (*LSO)* course hasn't been done since March 2018, when the new AS/NZS Standard 4173 was released.

These webinars are suitable for operating theatre staff, nurses, beauty therapists and other dermal clinicians or skin therapists, as well as GPs and doctors. Anyone who is wanting to start a career in the area or who needs laser safety training. Delivery is by Zoom webinar.

Those new to these should go to the Bravura website: www.bravura.edu.au

Investment of time: 9.30am-3pm Australian Eastern Standard Time (AEST). Breaks at 11-11.15am and 1-1.30pm. Assessment is an online two-hour, open-book quiz done afterward. A workbook is provided to assist note-taking.

Important cancellation notice: If you are unable to attend and advise Bravura Education within 24 hours, you will be moved to another timeslot. Non-attendance for any reason without 24 hours or more notice will result in forfeiting your fees and re-enrolment at additional cost. This is because places are limited and valuable.

For more details about the course visit the Laser Safety Officer (LSO) training course (surgical and operating suite) page of the Bravura Education website (www.bravura.edu.au).

PNC Scholarships

Don't forget, one College member from each PNC Region will be awarded a scholarship to do Bravura Education's online LSO training. All current PNC NZNO members are eligible to apply.

How to apply: submit an application directly to the PNC via pnc.sec@xtra.co.nz Include a short paragraph stating why you feel the Laser Safety Officer training would benefit your professional development. Include your PNC Region (e.g. Southland etc.) and your area of practice.

education

BASIC training for COVID-19 Intensive Care

By Jane O'Donnell, Kirsty Taylor & Ross Freebairn

Abstract The COVID-19 pandemic has placed an incredible strain on health systems, and in particular on intensive care, worldwide. Ensuring intensive care capacity is able to meet these increased demands is determined by three co-dependent factors: physical bed numbers, intensive care equipment (including ventilators) and staffing resource. Bed numbers and equipment can be addressed but finding staff and rapidly arming them with appropriate competencies to deliver quality intensive care remains a difficult barrier. We describe the delivery of 'BASIC for Nurses' courses, with its COVID-19 online adaptation to New Zealand and Samoan Nurses during the COVID -19 readiness response over 2020.

Keywords Covid 19 pandemic, intensive care nurses, intensive care bed capacity, Basic Assessment and Support in Intensive Care (BASIC) course

Background

A novel coronavirus, named Severe Acute Respiratory Syndrome coronavirus 2 (SARS-CoV-2), was identified as the cause of an outbreak of respiratory illness first detected in Wuhan, China in late 2019. The illness caused by this virus has been named coronavirus disease 2019 (COVID-19).

The COVID-19 outbreak is this century's most significant global health crisis. The SARS-CoV-2 virus has spread worldwide over the last 12 months, with more than 100 million cases diagnosed and over two million deaths (Kung, Doppen, Black, Hills, & Kearns, 2021; Worldometers.info, 2021).

On March 11, 2020, a COVID-19 pandemic was declared in New Zealand (NZ). As of January 28, 2021, NZ had seen 2295 positive cases of COVID-19, with 2201 recovered and 25 deaths (Dong et al., 2020; Kung et al., 2021).

The coronavirus group of viruses are prevalent with a typical coronavirus infection characterised by rhinorrhea, sore throat, malaise, cough, and pyrexia (Zhu, Wei, & Niu, 2020).

Many of us have been infected with at least one coronavirus over our lifetime. Examples of earlier human coronaviruses causing severe symptoms include MERS-CoV (a beta coronavirus causing Middle East Respiratory Syndrome, or MERS), and SARS-CoV (a beta coronavirus causing the severe acute respiratory syndrome, or SARS).

In 2019 the Novel Coronavirus (2019-nCoV), also known as COVID-19, outbreak began in Wuhan, China (Zhu, Wei, & Niu, 2020)

The evidence from areas where COVID-19 spread rapidly suggest that 6-12 percent of positive cases require Intensive Care Unit (ICU) admission (Grasselli, Pesenti, & Cecconi, 2020). As the pandemic escalated, multiple health systems described acute demand that overwhelmed the affected hospitals' standard ICU capacity (Falcó-Pegueroles, Zuriguel-Pérez, Via-Clavero, Bosch-Alcaraz, & Bonetti, 2020; Iosa, Paolucci, & Morone, 2020; Lapostolle et al., 2020).

The 3.2 ICU beds per NZ 100,000 population is the second-lowest rate in the Organisation for Economic Co-operation and Development (OECD) world…

Intensive Care in New Zealand

Compared with other similar health systems, NZ has a relatively low number of ICU beds, as low as 153 spread over 30 units (Morton, 2020). The 3.2 ICU beds per NZ 100,000 population is the second-lowest rate in the Organisation for Economic Co-operation and Development (OECD) world, equating to about a third of Australia's and one-tenth of Germany's capacity (OECD, 2020). New Zealand would have insufficient ICU beds to meet the surge in demand driven from a widespread pandemic.

Three co-dependent factors determine the shortfall of ICU capacity. Firstly, the lack of appropriately serviced bed spaces; secondly, the absence of specialist equipment, in particular ventilators; and thirdly, the shortage of appropriately trained staff.

In response to the international situation, in mid-March 2020, the Government's $12.1 billion economic package included $32 million to increase ICU capacity (Lewis, 2020). Physical bed capacity had been raised to 358 beds by April 29, 2020 with 334 ventilators available (Health, 2020).

Increasing ICU nursing workforce

The NZ Ministry of Health's national capacity target of 500 ICU beds, or 10 beds per 100,000 population, responds to the COVID-19 pandemic using newly acquired ventilators and other equipment, along with clinical areas reconfigured as ICUs. This target faces two significant problems: how to acquire an adequately sized nursing workforce (approximately 3000 in total), and how to train them in intensive care practice. The answer to the first question is a political one, and will differ between different hospitals and regions.

Former ICU nurses, either retired, in non-nursing roles, or in different disciplines, seem an obvious choice. However, many are in other frontline roles in the battle against COVID-19 and could not be reassigned to ICU. In the event of a pandemic, at least during the surge stages, it is expected the elective surgical volumes would be decreased, thus releasing theatre staff for other duties. Therefore, it is likely that the nurses from operating theatre and perioperative areas would form a significant cohort of this workforce. The second issue is how to transfer intensive care nurse competencies to a group of nurses with a broad spectrum of clinical and perioperative experience.

There is limited consensus on how to allocate the finite resource of ICU beds and ventilators. There is a lack of high-quality evidence and guidelines on resource allocation during the pandemic (Kontis et al., 2020).

High ICU workload-to-staffing ratios are associated with increased patient mortality, with personal protective equipment (PPE) and high ventilator rates adding to the burden caused by this devastating disease (Lee et al., 2017). To increase ICU capacity, augmentation of staff with colleagues from non-ICU areas will be required, and the training of these external staff on general intensive care management is crucial (Einav et al., 2014; Gomersall et al., 2006; Qiu et al., 2020).

The Australian New Zealand Intensive Care Society (ANZICS) guidelines suggest formal rapid orientation and training programmes be provided, and these nurses should work under the supervision of an experienced ICU nurse (ANZICS, 2020).

Nurses at Tupua Tamasese Meaole (TTM) (National) Hospital, in Samoa.

BASIC Course Training Programme

Following the SARS outbreak back in 2003, it was recognised that rapid expansion for ICU services to meet clinical needs creates significant risk and problems. In 2004, a two-day face-to-face course aimed at health practitioners asked to provide intensive care, saw the Basic Assessment and Support in Intensive Care (BASIC) course launched (Douglas et al., 2010).

Between 2004 and the early end of 2019, more than 2000 BASIC courses have been conducted in more than 50 countries, including over 100 within New Zealand.

'BASIC' has a firm emphasis on mechanical ventilation, but also covers assessment of the seriously ill and other aspects of critical care. This is aimed at junior resident medical officers who may be working in ICU and acute care specialties. However, ICU nurses and career medical officers and consultants in other disciplines who are occasionally asked to provide intensive care have also participated in and enjoyed the course.

In 2014, a parallel course "BASIC for Nurses" was developed as an introduction to novice ICU nurses and has been run in NZ since 2017. Both courses teach principles and practice consistent with current intensive care practice in NZ. The course material includes a comprehensive manual, a BASIC for Nurses App, a pre-course test, lectures, skills stations and a post-course assessment.

At the start of the initial COVID-19 lockdown, the Minister of Health requested both BASIC courses and BASIC for Nurses courses to provide training for medical staff and nurses who would be seconded to the ICU.

BASIC for Nurses course

A BASIC for Nurses course was rapidly organised in Hawke's Bay on March 19, 2020, incorporating an abridged train-the-trainer course to also allow other sites to teach the course.

Social distancing and maintenance of other isolation processes were challenging. Using pre-recorded lectures, delivered through the BASIC for Nurses APP and to the website, reduced course duration and minimised contact time. The nine e-lectures were:

1 Physiology;
2 Respiratory;
3 Cardiovascular;
4 Airway management;
5 Mechanical ventilation principles: modes and settings;
6 Mechanical ventilation principles: troubleshooting;
7 Haemodynamic monitoring and shock;
8 Routine nursing care;
9 Communication and clinical handover.

While lectures added to and clarified the manual's core knowledge, one of the most valued aspects of the Basic for Nurses course were the skill stations. There are five to seven participants with interactive small group teaching techniques. Social distances were maintained and PPE worn thoughout the course. In Hawke's Bay, we used an Intermediate School hall, which provided more space than would generally be available for teaching, protecting social distancing.

The following skill stations complemented the lectures:

1 Mechanical ventilation basics and settings;
2 Mechanical ventilation troubleshooting;
3 Basic Nursing assessment;
4 Airway management;
5 Hemodynamic monitoring and shock;
6 Care of the intubated patient.

Results

Over the next six months, 15 "BASIC for Nurses" face-to-face courses were run, with over 250 participants at three sites, Hawke's Bay, Taranaki and Otago. Additional BASIC courses were also run in the same sites and

the Wellington region for a mixture of medical staff and nursing. Several District Health Boards used the BASIC for Nurses material informally for COVID-19 response training, outside of the BASIC for Nurse's structure.

The established BASIC course's robust content required no modification for use in these face-to-face courses. In collaboration with colleagues at the Chinese University of Hong Kong, Jane O'Donnell from Massey University's School of Nursing led a team adapted to a COVID BASIC for Nurses Course, using the nine e-lectures and six virtual skill stations. Six ICU Clinicians from Australia, NZ and Samoa facilitated the six skill stations. Facilitation was achieved both virtually and in person. Massey University School of Nursing designed and hosted the learning platform for the course delivery in conjunction with the Chinese University of Hong Kong.

A total of 103 Nurses completed the challenging modified BASIC for Nurses course. These participant nurses held various clinical roles, including the operating room, PACU, district, emergency care and medical-surgical nursing. The participant feedback was all positive. The participant nurses were in practice at four remote District Health Boards within NZ and the Tupua Tamasese Meaole (TTM) (National) Hospital, in Samoa.

In 2004, a two-day face-to-face course aimed at health practitioners asked to provide intensive care, saw the Basic Assessment and Support in Intensive Care (BASIC) course launched

Lessons

It is neither practical nor feasible to prepare from scratch a full course in a short time. Use of the BASIC and BASIC for Nurses courses allowed the teaching of the tested material. Trainers are often occupied dealing with the very problem that created the need for additional staff.

Trainers need to understand the ICU environment and culture, have relevant clinical experience and course material knowledge. Moving the course to an online format, while potentially diminishing its power, significantly increased candidates' access to experienced trainers. Maintaining on-going training requires resolve and determination. In preparation for a pandemic escalation, time is required for education and training. Coordinated access to nursing staff needs to be a priority. Preparation and clarifying expectations of candidates are essential for the course to work. Furthermore, access to educational real estate is essential.

Conclusion

New Zealand adopted a policy of containment and elimination, and avoided the scenarios seen in similar health systems, leaving NZ relatively unscathed (Baker, Kvalsvig, Verrall, Telfar-Barnard & Wilson, 2020).

At the end of the initial lockdown, admissions to ICU remained unchanged compared to historical controls. However, case mix may have changed (Young, Gladwin, Psirides, and Reid, 2020). Other countries suffered increased mortality since the start of the pandemic, but in NZ for various reasons overall mortality has fallen (Kontis et al., 2020; Kung et al., 2021). Avoidable mortality overseas has been significantly influenced by an inability to access adequate ICU services (Bravata et al., 2021).

Should this, or a future pandemic ever spread in NZ with the ferocity we have seen in Europe, the Americas and Asia, preparation through focussed intensive care training will be essential to prevent excess harm.

References

ANZICS. (2020). The Australian and New Zealand Intensive Care Society (ANZICS) COVID-19 guidelines.

Baker, M. G., Kvalsvig, A., Verrall, A. J., Telfar-Barnard, L., & Wilson, N. (2020). New Zealand's elimination strategy for the COVID-19 pandemic and what is required to make it work. *New Zealand Medical Journal, 133*(1512), 10-14. Retrieved from https://www.scopus.com/inward/record.uri?eid=2-s2.0-85085323828&partnerID=40&md5=d6e824ab30261d2e8bb84ebbc55a9f4a

Bravata, D. M., Perkins, A. J., Myers, L. J., Arling, G., Zhang, Y., Zillich, A. J., . . . Keyhani, S. (2021). Association of Intensive Care Unit Patient Load and Demand With Mortality Rates in US Department of Veterans Affairs Hospitals During the COVID-19 Pandemic. *JAMA Network Open, 4*(1), e2034266-e2034266. doi:10.1001/jamanetworkopen.2020.34266

Douglas, A. E., Holley, A., Udy, A., Lipman, J., Gomersall, C. D., Joynt, G. M., . . . Boots, R. J. (2010). Can learning to sustain life be BASIC? Teaching for the initial management of the critically ill in Australia and New Zealand. *Anaesth Intensive Care, 38*(6), 1043-1051. doi:10.1177/0310057X1003800614

Einav, S., Hick, J. L., Hanfling, D., Erstad, B. L., Toner, E. S., Branson, R. D., . . . Task Force for Mass Critical, C. (2014). Surge capacity logistics: care of the critically ill and injured during pandemics and disasters: CHEST consensus statement. *Chest, 146*(4 Suppl), e17S-43S. doi:10.1378/chest.14-0734

Falcó-Pegueroles, A., Zuriguel-Pérez, E., Via-Clavero, G., Bosch-Alcaraz, A., & Bonetti, L. (2020). Ethical conflict during COVID-19 pandemic: the case of Spanish and Italian intensive care units. *International Nursing Review*. doi:10.1111/inr.12645

Gomersall, C. D., Tai, D. Y., Loo, S., Derrick, J. L., Goh, M. S., Buckley, T. A., . . . Joynt, G. M. (2006). Expanding ICU facilities in an epidemic: recommendations based on experience from the SARS epidemic in Hong Kong and Singapore. *Intensive Care Med, 32*(7), 1004-1013. doi:10.1007/s00134-006-0134-5

Grasselli, G., Pesenti, A., & Cecconi, M. (2020). Critical Care Utilization for the COVID-19 Outbreak in Lombardy, Italy: Early Experience and Forecast During an Emergency Response. *JAMA, 323*(16), 1545-1546. doi:10.1001/jama.2020.4031

Ministry of Health, (2020). Ventilators and ICU bed capacity [Press release]. Retrieved from https://www.health.govt.nz/system/files/documents/pages/ventilators_and_icu_capacity_11_may_2020.pdf

Iosa, M., Paolucci, S., & Morone, G. (2020). Covid-19: A Dynamic Analysis of Fatality Risk in Italy. *Frontiers in Medicine, 7*. doi:10.3389/fmed.2020.00185

Kontis, V., Bennett, J. E., Rashid, T., Parks, R. M., Pearson-Stuttard, J., Guillot, M., . . . Ezzati, M. (2020). Magnitude, demographics and dynamics of the effect of the first wave of the COVID-19 pandemic on all-cause mortality in 21 industrialized countries. *Nature Medicine, 26*(12), 1919-1928. doi:10.1038/s41591-020-1112-0

Kung, S., Doppen, M., Black, M., Hills, T., & Kearns, N. (2021). Reduced mortality in New Zealand during the COVID-19 pandemic. *The Lancet, 397*(10268), 25. doi:10.1016/S0140-6736(20)32647-7

Lapostolle, F., Goix, L., Vianu, I., Chanzy, E., De Stefano, C., Gorlicki, J., . . . Adnet, F. (2020). COVID-19 epidemic in the Seine-Saint-Denis Department of Greater Paris: One month and three waves for a tsunami. *European Journal of Emergency Medicine*, 274-278. doi:10.1097/MEJ.0000000000000723

Lee, A., Cheung, Y. S. L., Joynt, G. M., Leung, C. C. H., Wong, W. T., & Gomersall, C. D. (2017). Are high nurse workload/staffing ratios associated with decreased survival in critically ill patients? A cohort study. *Ann Intensive Care, 7*(1), 46. doi:10.1186/s13613-017-0269-2

Lewis, O. (2020 13:51, Mar 19 2020). Coronavirus: ICU expert says NZ could double bed numbers in 'exceptional circumstance'. Retrieved from https://i.stuff.co.nz/national/health/coronavirus/120398253/coronavirus-icu-expert-says-nz-could-double-bed-numbers-in-exceptional-circumstances

Morton, J. (2020, 25 Mar, 2020). Covid 19 coronavirus: New Zealand's intensive care unit capacity revealed. *NZ Herald*. Retrieved from https://www.nzherald.co.nz/nz/covid-19-coronavirus-new-zealands-intensive-care-unit-capacity-revealed/GYQ2FXOYHJECZAHU2YKHXYFWXI/

OECD. (2020). Intensive care beds capacity. Retrieved from https://www.oecd.org/coronavirus/en/data-insights/intensive-care-beds-capacity

Qiu, H., Tong, Z., Ma, P., Hu, M., Peng, Z., Wu, W., . . . China Critical Care Clinical Trials, G. (2020). Intensive care during the coronavirus epidemic. *Intensive Care Med, 46*(4), 576-578. doi:10.1007/s00134-020-05966-y

Worldometers.info. (2021). COVID-19 Coronavirus Pandemic Worldometer Retrieved from https://www.worldometers.info/coronavirus/. WorldometerPublishing Date: 31 January, 2021

Young, P. J., Gladwin, B., Psirides, A., & Reid, A. (2020). Unplanned admissions to the Wellington Hospital intensive care unit before, during and after New Zealand's COVID-19 lockdown. *The New Zealand medical journal, 133*(1527), 95-103. Retrieved from https://www.scopus.com/inward/record.uri?eid=2-s2.0-85098677057&partnerID=40&md5=f0405270c2b3382faac1df2829950c69

Zhu, H., Wei, L., & Niu, P. (2020). The novel coronavirus outbreak in Wuhan, China. *Global Health Research and Policy, 5*(1), 6. doi:10.1186/s41256-020-00135-6

Social distancing during skill stations in BASIC courses.

Acknowledgement

We want to acknowledge and thank the following: Gaelyn Douglas, Massey University, Learning and Development Staff, Massey University; Andrea Fail, Charlotte Chesbrough, Nigel Fealy, Jane Birdling, Fiona Blythe, Emily Shallard and Dr Jonathan Albrett, Chinese University of Hong Kong; Staff at Tupua Tamasese Meaole (TTM) (National) Hospital, Apia, Samoa; Intensive Care staff at Hawke's Bay, Otago and Taranaki Hospitals.

ABOUT THE AUTHORS

Jane O'Donnell is a lecturer at the School of Nursing, Faculty of Health, Massey University on the Albany Campus, having previously been an Associate Charge Nurse at Middlemore Hospital ICU and a Senior Clinical Research Scientist for Fisher and Paykel Healthcare

Kirsty Taylor is the Intensive Care Nurse educator at Hawke's Bay Hospital, in Hastings.

Ross Freebairn is an intensive care specialist at Hawke's Bay Hospital, Hastings and Associate Dean of the Hawke's Bay Campus for the University of Otago. He is also Adjunct Associate Professor at Chinese University of Hong Kong.

medical imaging nursing

COVID-19 and Pod-life in Radiology

By Rebecca Wilson & Saira Kika

Abstract: The COVID-19 pandemic precipitated rapid and widespread changes across the public health system to protect staff and prevent the spread of infection. The steps taken to safely maintain critical Radiology services saw the emergence of 'pod life'. The challenges of establishing the necessary protocols within this specialty are outlined.

Keywords: COVID-19 pandemic, radiology, staff protection, preventing transmission, personal protective equipment, protocols.

Introduction

Auckland City Hospital (New Zealand's largest public hospital), Greenlane Clinical Centre, and Starship Children's Hospital are the three major sites that form the Auckland District Health Board (Auckland DHB).

Radiology provides an extensive service at all three sites, including computerised tomography (CT), magnetic resonance imaging (MRI), X-ray, ultrasound, fluoroscopy, operating rooms (OR) and ward portable imaging, and picture archiving and communication system (PACS) support.

The Radiology department at Auckland City Hospital (ACH) is, however, the only site that provides nuclear medicine, peripherally inserted intravenous central catheter (PICC) insertions and peripheral and interventional neuroradiology (INR).

Radiology is a clinical support service with a large thoroughfare of inpatients and outpatients every day from all over the country. This can include an outpatient coming for an X-ray who spends five minutes in the department to an intubated intensive care unit (ICU) patient coming for a CT scan or an IR procedure who can spend anywhere from 20 minutes to several hours with us.

In early 2020 we, along with the rest of New Zealand, prepared to go into an unprecedented nationwide lockdown in a bid to reduce the rate of transmission of a strain of novel coronavirus known as SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2).

It is the illness resulting from infection with this virus that is now known as COVID-19 (coronavirus disease 2019).

The plan put forward by the New Zealand Government to "go hard and go early" would hopefully protect our healthcare systems and population from the devastating impact on human life seen overseas.

Every hospital, clinical centre, service, department and team right across the country has had their own version of the same experience with COVID-19, each of us with our own specific challenges to overcome. What follows is our experience to date.

Preparation, processes and the early days

When it became apparent that New Zealand was beginning to experience the impact of the COVID-19 global pandemic, waves of anxiety rippled through our department.

Never before had we been affected by a pandemic of this scale. We watched countries like Italy, France, Spain and the USA battle with high rates of transmission, overwhelmed health systems, shortages of personal protective equipment (PPE) and high mortality rates of patients

Corflute barriers and heavy-duty zip seal doors allow scanning and procedure rooms for all patients being managed under droplet or airborne precautions to be sealed off.

New terminology was introduced to us and suddenly 'doffing' and aerosol-generating procedures (AGPs) frequently came up in conversation…

including frontline staff members.

We feared and prepared for the worst, but desperately hoped for the best. It became very clear that we needed to put as many safety measures in place as possible beyond the national advice of social distancing, hand hygiene, wearing masks etc. to keep our staff and patients safe.

Auckland DHB provided a COVID-19 Clinical Guide which was updated multiple times as new information and research became available. New terminology was introduced to us and suddenly 'doffing' and aerosol-generating procedures (AGPs) frequently came up in conversation.

The Clinical Guide helped shape our protocols for all our modalities with appropriate PPE use according to the risk of transmission and whether patients were treated under droplet precautions or airborne precautions if undergoing AGPs, e.g. intubation, endoscopic retrograde cholangiopancreatography (ERCP).

Some modalities such as x-ray, ultrasound, and PICC insertion are able to provide a portable service, however, patients requiring CT, MRI, IR, fluoroscopy and nuclear medicine services must come to the department to access the specialised equipment required.

As a clinical support service, we have no designated isolation, negative pressure rooms or 'ante' rooms due to our quick turnaround of most patients and we clean all equipment and procedure rooms between patients, according to the Auckland DHB infection control policies.

It was clear that any patient coming to our department under COVID-19 precautions would take extra planning, staff and time.

Before the official lockdown, COVID-19 precaution patients were already beginning to trickle into the department, mainly for CT scans, which required a process to be put in place quickly. Ward/emergency department (ED)/ICU staff were contacted to ensure patients were prepped for their CT scan appropriately and a suitable time was arranged. The orderly and transit care team were contacted and informed of what PPE was required. One extra member of the transport team was required to be in full PPE but remain 'clean' in order to press lift buttons, open non-automated doors and be in communication with the orderly service to hold all other transfers into Radiology.

Plastic yellow chains were hung throughout the department to prevent all staff and patients from coming within two metres of the patient as they transited through our corridors. Team members were allocated to 'clean' or 'contaminated' roles prior to the patient's arrival and areas where these staff were allowed to access were clearly marked. The scan was performed and the patient left the department in the same carefully planned way they arrived. This initial rudimentary process still provides the fundamental basis for our current protocol for COVID-19 precaution patients coming to Radiology.

Personal Protective Equipment

Due to the highly transmissible nature of the SARS-CoV-2 virus, it was clear that we would need sufficient armour in the battle against it. However, like the rest of the world, the supply of PPE was not meeting the high demand. Masks, hand sanitiser and sanitising wipes were going missing and had to be locked up at the end of each day. Eventually, PPE supplies were centrally controlled to reduce stockpiling and ensure there was enough to go round. Each service would estimate their requirements for the next one to two days and this would be ordered from the central supply.

But supply wasn't the only issue in terms of PPE. To reduce transfer of viral particles to others or surfaces, the removal of PPE was a vital step in breaking the chain of transmission. We adapted the donning and doffing process with help from the Clinical Guide, instructional videos on the Auckland DHB intranet and by attending perioperative service donning and doffing education sessions for OR staff.

A challenge for Radiology was including our radiation protection, which consists of upper and lower body protection, thyroid shields

and radiation protective eyewear into our adapted doffing process. Our personal radiation protection items cannot be doffed and discarded like other PPE so each item had to be cleaned separately, which added more time to an already lengthy process.

'Pods'

The Radiology department of ACH has a wide range of staff working closely together across multiple modalities, over every floor of the hospital, as well as between the other two sites that make up the Auckland DHB.

With interventional radiology in particular, there was serious concern about the ability to continue the highly specialised service delivery if staff were stood down due to contracting or exposure to the virus.

Before the government had introduced the concept of 'bubbles' to the nation, a rostering system of 'pods' was proposed based on a Singapore model for continued service delivery developed from their experience with severe acute respiratory syndrome (SARS).

The two main principles of this approach were to minimise the risk of transmission from the radiology team to medically compromised patients and to mitigate the risk of cross-contamination between staff that would result in multiple staff members being stood down, and ultimately inadequate staffing to provide a service.

The week or so it took to arrange all staff across the entire Radiology department into Pods and configure the logistics of 24/7 cover without any physical cross-over of staff proved to be a few days too long. The day before, what became affectionately known as "pod-life" began, we were told that effective immediately, an anaesthetist, an anaesthetic technician, a vascular surgeon, an interventional radiologist, two radiology nurses, three vascular nurses and a radiographer needed to go straight home and self-isolate after they were exposed to an unconfirmed but suspected COVID-19 patient during an on-call case the previous weekend. Thankfully, this patient returned three negative swabs, and after the case was reviewed by the infectious disease specialists, all staff were cleared to return to work the next day. This incident highlighted how quickly several team members could be forced into self-isolation and the importance of maintaining our specialist peripheral and neuro IR services for as long as possible.

In interventional radiology, we split into three pods with each pod containing one to two interventional neuroradiologists/consultants/fellows, three to four peripheral IR consultants/fellows, three to four radiology nurses and two radiographers.

Each pod was rostered to complete a 48 to 72-hour shift and there was no physical interaction between pods. The pod concept was also

Before the official lockdown, COVID-19 precaution patients were already beginning to trickle into the department, mainly for CT scans which required a process to be put in place quickly

One of the Pods in full Personal Protective Equipment (PPE).

applied to staffing of other Radiology services where feasible, including X-ray, CT, OR/ICU imaging, and fluoroscopy by splitting all radiographers into one of two teams. They would take turns in working between Level 5 or Level 2 (ED).

Typically, our main Radiology department on Level 5 would only operate between 0730 and 1800. However, during this time the main department operated until midnight to ensure that the workload was being spread as evenly as possible. Once in lockdown, non-urgent outpatient bookings for Radiology services at Greenlane were deferred and several Radiographers were redeployed to ACH. A number of non-practicing Radiographers were also issued temporary registrations to help with this unprecedented situation. Radiologists across all sites were encouraged to report from home where possible. However, some administrative staff, booking clerks, management and several senior clinical staff members still needed to be on site and were unsuitable to go into pods as they were essential in the day-to-day functioning of the entire department.

Challenges

The logistics of the Radiology Service were challenging, to say the least. Our service is designed for a high throughput of inpatients and outpatients requiring efficient turnover of equipment and rooms to meet referral demands. But COVID-19 precaution referrals require extra resources, extra staff and extra time. Initially, when the extent of transmissibility was unclear, we erred on the side of caution and took extra time to clean rooms and equipment.

In the early days, the CT scanning room could be out of action for close to an hour per 'COVID-19 suspect/positive patient' while waiting for the dedicated cleaning team to arrive and complete the required thorough clean. This was not ideal with the amount of pending resuscitation, ICU and hyperacute referrals. The cleaning process has since been revised with Infection Control Services and adapted to reflect the short period of time most of these patients spend in a radiology room, allowing us to return to a regular service as soon as safely possible.

One of our biggest challenges for both CT and IR related to our 24/7 Regional Stroke Service where clinically appropriate patients who have suffered from a hyper-acute ischaemic stroke are transferred to ACH as quickly as possible for endovascular clot retrieval. In these situations, the faster we can recanalise occluded cerebral arteries, the better the patient outcome. After all, 'time = brain'. These patients are often aphasic or dysphasic making COVID-19 screening and assessment significantly harder and we often rely on family or friends to provide a

Continued on page 18.

collateral history, which was difficult with visitor restrictions. Even if a patient's COVID-19 risk was unable to be determined, we could not afford to wait for a swab to return a negative result before we started the procedure. The majority of clot retrievals are performed under general anaesthesia with the patient usually being intubated in the interventional neuroradiology (INR) suite, potentially exposing staff members to aerosolised viral particles unless the appropriate PPE is being worn. Several compromises had to be made in order to mitigate risk of transmission and exposure to staff. The IR and INR service agreed that one single plane IR operating room would be dedicated for any IR and INR procedures on positive or suspected positive COVID-19 patients.

All across Radiology, modality-specific pathways were created. The pathway for IR went through many iterations following each case as new challenges or previously unconsidered factors became apparent; like how long does it take to complete the recommended three full cycles of air-changes? Where should we be putting the patient's bed? How do we seal off air-flow to provide 'clean spaces'? How do we quickly doff and clean each item of radiation protection so that it can be worn for the next case?

This pathway now includes multiple comprehensive checklists to plan for any contingencies or anticipated complications. All involved staff are required to attend a pre-procedure briefing to ensure all "clean" and "contaminated" roles are allocated, to clarify that all procedural equipment is in the OR and all donning/doffing equipment is available. The IR OR would be closed to essential personnel only, with warning signage on all entry points. For all moderate to high risk COVID-19 patients undergoing GA, including for clot retrieval, the patients would be taken to the Level 8 'COVID-19 designated' OR to be intubated and then transferred to Radiology. The procedure would be performed under the IR COVID-19 Protocol in full PPE. Post -procedure, the patient, anaesthetic team and "clean" nurse would transfer back to the Level 8 OR to be extubated and hand the patient over to post anaesthetic care unit (PACU) staff.

Outcomes

Fast forward to mid-2021 where many changes have been made within Radiology and the wider DHB. As a result of the borders being closed, we had to find a way to securely broadcast cases via Zoom, or some equivalent, to enable overseas company representatives to safely assist in the use of specific products. Now, it is not uncommon to find our friendly local broadcast crew, either setting-up or dismantling their cameras at least once a week. A screening tool has been developed which reflects the amount of COVID-19 in the community and adjusts PPE, isolation and cleaning requirements according to the risk of transmission. All inpatients are screened daily and all outpatients are screened at first point of contact.

A Radiology-specific transfer, PPE and cleaning guide has been developed in conjunction with the Auckland DHB Response Management Team and Infection Prevention and Control Team to reflect the limited time patients being managed under COVID-19 precautions spend in the department.

Masks, hand sanitiser and sanitising wipes were going missing and had to be locked up at the end of each day.

Before the government had introduced the concept of 'bubbles', a rostering system of 'pods' was proposed based on a Singapore model for continued service delivery developed from their experience with severe acute respiratory syndrome (SARS).

At ACH, two CT scanners, one X-ray room, one IR OR and the fluoroscopy room have been fitted with Corflute barriers and heavy-duty zip seal doors which allow us to seal off these scanning and procedure rooms for all patients being managed under droplet or airborne precautions.

Our current protocols and processes are still largely based on the basic principles from their initial conception but are updated regularly as new research comes to light.

Another significant advance is the rollout of the vaccination programme. At the time of writing the majority of Radiology staff have received their two doses of the Pfizer vaccine.

Conclusion

With the opening of the trans-Tasman and Cook Islands "travel bubbles", the rollout of the vaccination programme and with significantly less restrictions than a year ago, one could be forgiven for thinking we are slowly edging back to 'normal'. However, the recent outbreaks in India are a stirring reminder that we are still far from the world we once knew. At least for the team in Radiology at Auckland City Hospital, we feel a little more prepared if or when another lockdown occurs, whether it is due to COVID-19 or some other new threat.

ABOUT THE AUTHORS:

Rebecca Wilson moved from Opotiki to Auckland in 2004 to study at UNITEC for her Bachelor of Health Science (Medical Imaging). Since Qualifying in 2006, Rebecca has worked across many areas of Radiography at Auckland City Hospital including general x-ray, theatre, DCCM/ICU, CT and interventional radiology. In 2014 Rebecca took up roles in CT for Siemens Healthcare. During her time with Siemens, she attended numerous sites across New Zealand and Australia (public and private, veterinary hospitals and forensic institutes), as well as a few trips slightly further afield (Germany and Vienna). Rebecca returned to the clinical workspace in 2017 and is now a Clinical Specialist MRT in interventional radiology Auckland DHB.

Saira Kika is from Auckland and completed a Bachelor of Arts with French and Psychology majors before spending a year living in France. She returned to New Zealand and completed her Bachelor of Nursing in 2014 from the University of Auckland. After working for four years in a General Surgery/HPB/Trauma/Gastroenterology/Colorectal/Bariatric ward, she moved into Radiology and has spent the last three years there. She enjoys working with a diverse range of patients with varying acuity and working with the fantastic Radiology team.

INTRODUCING MODULAR O.R

Modular O.R combines superior design and beautifully integrated technology to deliver an attractive and efficient surgical workspace

EXCEPTIONAL ENVIRONMENT FOR STAFF AND PATIENTS

I work in both theatres at Wairau and the Modular O.R theatre feels airy, clean and less cluttered. There's no doubt the glass walls and centre mount pendant have made floor trolleys obsolete and give the space an openness that makes it feel vastly bigger. It's a contemporary, crisp and professional space that's a pleasure to work in.

ANDY MEIGHAN, ORTHOPAEDIC SURGEON

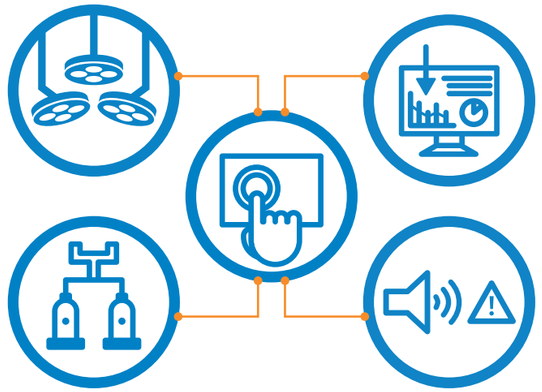
Superior infection control with patented anti-bacterial walls

The new ultra-sterile environment means the potential for intra-operative infection is significantly reduced for patients.

Flexible and easy to maintain and adapt over time

All utilities and services are located within the sub-structure cavity. The removable wall panels simply expose the substructure, providing access for inspections and installation of new services and equipment.

The latest world-class innovations and digital integration



Module control as an interactive and innovative digital control system

An intuitive touch screen panel makes it super easy for users to monitor and control all room systems within the O.R, including:

- Room lighting
- Surgical lighting
- HVAC, AGSS
- UPS status indication
- Medical gas alarm status indication
- Smart glass window control
- Any other room systems

Minimal build and installation disruption reduces O.R downtime

We offer a rapid and hassle-free installation that minimises disruption. Pre-manufactured modular rooms are rapidly assembled on-site in days rather than months unlike traditional builds.

New Zealand based technical expertise and support teams

Our full team of Installers and Service Technicians are all based here in New Zealand, ensuring continuity for the level of support we can provide and mitigating the risk of any disruptions due to border restrictions. Our team of Service Technicians have all been factory trained to support the equipment we install.

0800 32 40 32 sales@opritech.co.nz opritech.co.nz

The Big Move:

Perioperative Services Migration

Christchurch Hospital Waipapa

By Rebecca Porton-Whitworth

Abstract Christchurch Hospital has recently moved and expanded into Waipapa Christchurch Hospital. This article reviews the organisational and logistical processes required to move the perioperative service.

Keywords Perioperative service, logistics, instrument and stock management, nursing, project delivery

Introduction

Over the past few years, Christchurch Hospital has been preparing to move and open Christchurch Hospital Waipapa. As of August 2020, there was a definite plan to move by November, but for this to be achieved considerable work was required behind the scenes to ensure a logical process and sequence of events. For example, prior to orientation to the building, all staff were required to complete an online learning package.

Train the trainer refresher courses were necessary, so staff were equipped to familiarise other team members with the new space and to specific areas. Cleaning and pre-stocking also needed to occur, making the building off-limits for a time. Pharmacy also time trialled setting up and labelling drug cupboards in preparation for the transfer of stock to the new building and to ensure consistency. During this time, Canterbury District Health Board (Canterbury DHB) Facilities and Maintenance and Engineering teams were also completing work to ensure the buildings were fully compliant, ready and fit for purpose (Canterbury District Health Board, 2020).

The perioperative service expanded significantly, residing over three separate sites; Christchurch Hospital, Christchurch Women's Hospital and Christchurch Hospital Waipapa. The perioperative service incorporates operating theatres, post anaesthetic care (PACU), day of surgery admissions (DOSA), and day surgery (DSU) with step down recovery.

With the expansion into Waipapa Hospital, ten extra theatres were added, with another PACU, adult admitting unit with step-down recovery and a separate paediatric admitting unit with step-down recovery.

As part of the move, several areas were reviewed, which required extra resourcing and changes to current ways of working.

Senior nursing structure

Currently, the senior nursing structure has one perioperative manager, five charge nurse managers (CNM); covering day surgery and day of surgery admissions, PACU and operating theatres, two coordinators and three nurse educators; two for theatre and one for PACU/DSU. There are

Left: Initial walk through of the cardiac theatre. Right: First walk thru, trying out the new theatre scrub trollies.

Operating Theatre – pre-set up during initial walk through.

ten clinical nurse specialists (CNS) and one specialist nurse.

The nursing structure required additional resourcing to ensure effective leadership and to support the increased clinical work undertaken across the perioperative service.

A proposed senior nursing structure was released in April 2018 (M. Lory, personal communication, April 10, 2018). The following changes were proposed with the senior nursing structure:

- An additional Clinical Nurse Specialist for PACU;
- The shared nurse educator for PACU/DSU becomes solely responsible for PACU;
- An additional CNM in operating theatre;
- An additional CNS to cover vascular and the hybrid theatre and an increasing role with interventional radiology, separating the currently joint Vascular/Cardiothoracic CNS position;
- An additional three specialist nurses to cover orthopaedics, general surgery and gynaecological surgery, to work clinically to support the CNS role with teaching and management of the specialty;
- An additional nurse educator for DSU/DOSA also covering the step-down recoveries;
- Nurse in Charge DSU/DOSA rostered to assist the CNM in coordinating the service across multiple sites.

Feedback was sought regarding the proposed perioperative nursing structure. This was confirmed as listed above in November 2020. At the time of writing, appointments were underway for the above positions.

Operating theatre instruments

As part of the new hospital, Christchurch Operating Theatre has increased its space with 28 theatres spread over three separate buildings and in four different locations. Within the Waipapa complex are three separate pods surrounding four operating theatres which will provide a storage hub for those theatres. Some specialities such as vascular, cardiothoracic and neuro are moving completely to Waipapa. Other specialities will be split across more than one space. For example, adult and paediatric ear nose and throat and urology will be performed in the paediatric theatre, splitting paediatrics away from the adult services. This space will also be the only area open for acute work in the evenings and weekends.

As part of the accepted increase, the care model consolidates the

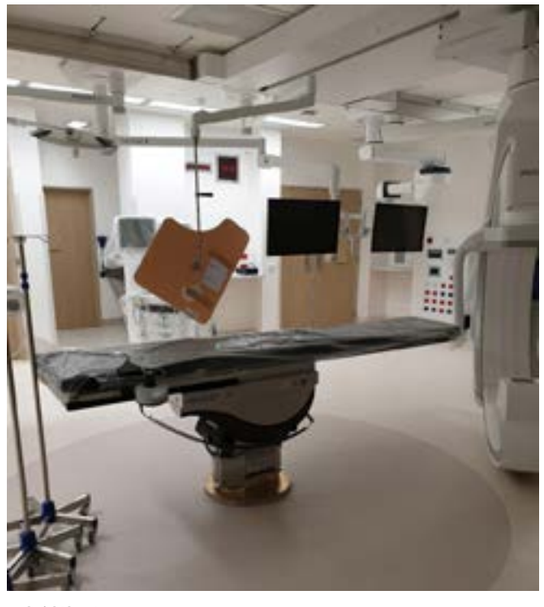
As part of the new hospital, Christchurch Operating Theatre has increased its space with 28 theatres spread over three separate buildings and in four different locations.

paediatric work to one place, improving the patient's care journey. However, this increases the volume of instruments required, as traditionally paediatric cases flowed through the same specialty theatres as adults, requiring a smaller pool of instruments. With the separation of paediatric and adult lists, a second pool of instruments in another location is needed to make it safe and efficient to operate. This same principle was used for reviewing acute work instrument requirements.

The first part of the project began in 2017. Each CNS checked their instrument specifications for their specialty as part of the planning process, taking into account whether the entire service moved versus part of their service or just acute after-hours-work.

Each specialty not moving to Waipapa reviewed their after-hours acute work, equipment and instruments, which informed what would be required to be purchased to continue to operate safely and effectively. This affected general, maxillo facial and plastics, as their elective surgery was to be undertaken in a different location, with all of the acute work carried out in Waipapa.

All of the specialties completely relocating had a different challenge of combining equipment and instruments as each theatre pod is made



Hybrid theatre.

organisation & logistics

up of four theatres with a shared storage area. As part of the purchasing process, each CNS reviewed the contents of their instrument sets and the instruments they have in steripeel, ensuring only what was required would be purchased. Management also considered items currently prioritised for sterilisation in sterile services. Prioritising instruments slows the flow of instrument sterilisation in sterile services as autoclaves are held for the high priority items. This will eliminate some of the prioritisation items within this budget but not all. This should help with preventing a backlog. Without these instruments the operating theatre would not be able to undertake the work going through eight more theatres.

A business proposal of $3,000,000 for new instruments was submitted to enable the increased surgical output and expansion of current services in operating theatres based in Hagley Hospital. With the increase in workload, the current stock of instruments would not meet the demands. Other factors taken into consideration were the theatre speciality location, current tension points with sterile service processing, the separation of paediatric surgery and changes to the case-mix.

Asset management

A tender process for surgical instruments and crates was conducted and contracts set up by procurement. Following this process, instruments and crates were purchased in the following way:

Standardised instruments were purchased from a company in fixed lots with pre-marked global standards (GS1) standard barcode surgical labelling. They were checked as they arrived and inserted directly into the T-Doc instrument tracking programme. Generic instruments are common to the individual specialties.

- Specialised instruments were purchased from different companies, sent for laser etching to medical physics and then entered into the instrument tracking system. Instruments common to a specialty were purchased and standardised.
- Once the instruments are in T-Doc and ready for surgical use they are sterilised in the sets.
- Specialty banners will identify the instruments and be listed as assets under this banner.

Finance and resourcing

Operating theatre management has collaborated with procurement over the past few years to calculate the level of investment needed for expansion. The initial cost ranged from $2.5 million to $4.8 million for this tender. Canterbury DHB approved $3 million. The agreed completion time frame for the initial purchase was over one year, with finance put aside to address any flow issues. Further funds may be required for additional instruments to cover the two theatres coming online later, once it is known which type of surgery is increasing.

Variation in tendering costs may also mean there is insufficient money to acquire everything needed, putting additional pressure on sterile services. Sterile services also indicated that it would be best to sterilise all instruments in metal rather than plastic trays, which has a cost implication not taken into account in the initial quote. Strategically this is the appropriate direction.

Purchase of emergency vascular instruments – Prang Set.

Setting up the circulating trolley.

Left: Setting up accessory trolleys – gel pads, draw sheets, table clamp, arm boards and pillows. Right: Simulation Training – Cardiac theatre (prior to cleaning hence non-theatre attire).

Project delivery

Spreadsheets were developed for each specialty listing the required instruments with company engagement during the tender process. Orders for the instruments were placed in October 2019 once the numbers required and the code of the instrument was confirmed. Crate sizes were also confirmed as they were supplied by a different company. Instruments and sets were set up in T-Doc ready for when instruments arrived. Standard and etched specialist instruments were in turn added to T-Doc. Once on hand and documented, the surgical sets were assembled in the crates and sterilised by sterile services ready for use.

As part of the project, 169 instrument crates were purchased to house the instruments and 2000 items for Steripeel. Steripeel is a single pouch which sterile services use to wrap single instruments for sterilisation. The instrument crates comprise a base container, lid and inner basket. Each basket also has stands that help organise it. A review of instrument flow through sterile services will also be required.

Clinical stock management

In preparation for the move, a lot of work was done behind the scenes with our Operating Theatre Assistants (OTA) and purchasing team. All specialty consumable items were coded with Oracle numbers and are scanned either daily or weekly. A list was created for each pod in Hagley and was pre-stocked prior to the move.

Trolleys

General and specialised circulating trollies are used in the new theatres. The CNSs worked on organising the four drawer trollies, with two drawers the same and two drawers unique to each specialty. As the drawers are interchangeable, they can be adapted for each individual list. These are restocked by our OTAs. Other specialised trollies were upgraded, for example the emergency chest re-open trolley for intensive care and the emergency abdominal aortic aneurysm trolley.

Simulation

Planning meetings and simulation days were organised with each specialty involving a variety of multidisciplinary teams including the surgical, anaesthetic and nursing, from operating theatre and the wards.

The simulation walk-throughs covered a variety of things, for example: patient pathways from the ward or via DOSA, intraoperatively and postoperatively, review of intraoperative processes and workflow within the operating theatre.

Elective and emergency scenarios were simulated, for example

Vascular/hybrid dimulation training.

Previous cardiac theatre storage area.

Left: ICU – chest re-opening simulation. Right: Central Core – POD A Drawers for consumables and Steripeel items. Shelves for instrument sets.

preparing for an after-hours emergency case such as an abdominal aortic aneurysm in the hybrid operating theatre, or a chest reopening in the new intensive care unit. Utilising the massive transfusion protocols was included. Any areas of concern, such as height of pendants or door movement, were highlighted and rectified prior to the move. Go-live testing was undertaken with patients being operated on prior to us moving over a two-week period.

Moving day – November 2020

Prior to moving, the CNS group worked on each Pod to organise the different spaces to accommodate equipment, consumables, instrument sets and Steripeel items. Within the space there is a shared area with everyday items such as swabs, sponges, syringes, Steripeel items etc. and specialised areas for each specialty. Drawers and shelves were labelled to help with transferring or setting up the flow of stock. Specialities that were expanding did not move so they were pre-stocked with the new instruments purchased. Specialities that were completely moving, relocated over a weekend in November. This required a lot of organisation as other emergency providers were left to cater for the weekend work until it was business as usual on Monday morning.

References

Canterbury District Health Board. (2020). CEO Update (2nd March, 2020), Hikina to Hagley: Migrating to Christchurch Hospital, retrieved from https://www.cdhb.health.nz/wp-content/uploads/0339415c-canterbury-dhb-ceo-update-monday-2-march-2020.pdf

Lory, M. (2018). Discussion Document Perioperative Service Senior Nursing Structure.

ABOUT THE AUTHOR

Rebecca Porton-Whitworth RComp, BHSc, MNurs (Hons) has worked extensively for over 20 years within the perioperative environment working in a variety of specialties and roles. 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 of Cardiothoracic and Vascular Theatres at Christchurch Public Hospital. She joined *The Dissector* editorial team in 2019.

Setting up the new central core drawer spaces.

Life in Dublin in lockdown

By Tracey Lee

Abstract: A New Zealand Perioperative Nurse and former member of the Editorial Committee reflects on living and working through the COVID-19 pandemic in Dublin, Ireland. Tracey shares some of the realities of working in a stretched public health system faced with recurrent surges in case numbers while also reflecting on the positives and things that really matter.

Keywords: COVID-19 pandemic, lockdown, nursing, staff redeployment, upskilling

Imagine selling all your household goods with dreams of weekends in Morocco and traversing the world only to land up in a perpetual lockdown. It's difficult to imagine such a world now!

My husband Ivan and I travelled to Ireland in January 2020, expecting to travel Europe and spend Sundays in the pub nursing a Guinness. However, the pubs closed at the start of March 2020 and, at the time of writing this, they still haven't reopened, so those dreams are yet to become reality.

On March 12, 2020, the country started to close down as COVID-19 cases rose, closing schools, childcare facilities and colleges. Cases then continued to climb until on March 27 there were 302 new cases per day and fatalities rose rapidly to a total of 22. A 'Stay at Home' order was issued by the Taoiseach (Prime Minister) Leo Varadkar, with very few exceptions. Schools and universities were closed and people were urged to work from home unless absolutely necessary to go into work.

Fear takes over

The first surge sent the country indoors and the streets looked like something out of the `Walking Dead` television show, as everyone was advised to stay at home and only essential services were open. Fear in the community was palpable and the streets became quiet and eerie. We joined the rest of the world, clearing supermarket shelves of toilet paper and flour as panic rose quickly in the community. Numbers of COVID-19 cases continued to rise, despite lockdown measures, until we had on average 900 new cases and 13 deaths per day.

The Grand Canal early on a winter morning, Ballsbridge.

The famous Ha'penny Bridge over the Liffey on a Saturday morning in winter (just outside the 5km travel limit).

I remember Ivan and I standing staring at each other in the lounge as the last of the jet trails left our skies and made the definitive decision that we had come too far and committed too much to this journey to now go back. Collectively we decided, despite an anxiety we'd never felt before, to just keep moving ahead. At some point, it became near impossible to even contemplate travelling home and we spent a few months with BBC news running non-stop all hours to try and get a better idea of what was coming.

We've been lucky though. Within a month of arriving, I had managed to charm my way into an apartment, we had some basic living supplies, our meagre essential items arrived from New Zealand (the last day we could have received them), and miraculously my Irish nursing registration came through in the post after months of waiting.

I had signed up to the government's 'call for help' and was on standby to go and help wherever I might be needed when I managed to find my dream job. I interviewed and was successful in securing a position in the Mater Misercordaie University Hospital, as the new Associate Nurse Director for Workforce Planning. I started just a week prior to the first lockdown.

Mater's history

The Mater hospital is a 580-bed hospital steeped in tradition, established by Catherine McCauley and the sisters of Mercy in 1861. It is partly government (HSE) funded and partially supported by the Mater Foundation, and a member of the Ireland East Hospital Group (IEHG). The old part of the hospital has the most beautiful high ceilings, grand staircases and sash windows and there are still nuns in residence on the hospital grounds. You can almost feel the nuns of old walking down the corridors and up and down stairs in their habits.

The Mater Hospital accommodates many national services that needed to remain operational during a pandemic including: National Isolation Unit, National Centre for Heart and Lung Transplant services, National Spinal Unit and Ireland's leading Intensive Care Unit (ICU), the only ICU outside of paediatrics providing extracorporeal membrane oxygenation (ECMO), which was about to be tested to capacity.

Supportive nursing community

Following nursing orientation, I joined the senior nursing team and settled into a temporary desk near the office of my manager, Suzanne Dempsey, the Deputy CEO and Director of Nursing.

The first months were just a blur, with the only travel allowed to and from work, and just one household member allowed out for groceries. I was new to the health system, the hospital and in a new role, but I was lucky to find myself in the most supportive community of nurses.

I did everything I could to help. I recruited nurses into new units and filled vacancies, along with keeping a record of redeployed staff and those off either sick with COVID-19, or in isolation due to close contact.

In the latest surge many of our clinics continued and we started vaccination clinics, so I instead was able to offer psychological support to staff in the COVID-19 pathway areas. This gave me the perfect opportunity to change into a uniform, walk around all the wards and get to know all the charge nurses and staff working on the frontline of this pandemic.

Change in operations

A week prior to my starting, the hospital had been converted from regular services into two pathways, COVID-19 and non-COVID. The emergency department (ED) was split in half and a tent erected out the front to assess patients and place them on the appropriate pathway. A single bed orthopaedic ward and another surgical cardiac ward had been converted into COVID-positive wards and were filling quickly with sick patients as staff upskilled on how to operate the necessary non-invasive positive pressure equipment and symptomatic COVID treatments.

All staff had received training on how to don and doff PPE and there was a conference room full of PPE and necessary fluids and equipment.

Above: The view from the Mater Misericordiae over the community served as sun sets in winter. Left: The original stairwell inside the Mater Misercordiae Hospital.

Many specialist services, wards, operating theatres, clinics and radiology were closed and staff from these areas were redeployed to support those on COVID pathways.

The post-operative care unit (PACU) and theatres were converted ready to take overflow from the ICU/HDU but thankfully weren't required, though we came close. My walks through ICU and talks with nurses certainly provided a sobering reality.

Private hospitals across the city temporarily took the majority of acute surgical patients to ease the public health system. Algorithms had been created to help clarify all new processes and to assist in clinical decision making. The senior nursing team had meetings three times a week over zoom and morning huddles every day to regularly re-access the hospital and staffing situation.

There were some quick wins that were believed to have reduced the overwhelm in ED and wards. One example was the virtual COVID monitoring team which was set up to keep sick COVID patients at home where possible. Continuous at-home observation monitoring was provided, with regular phone assessment each day. This provided much-needed relief for hospital beds and staff.

Three surges

We've now been through three surges with the last one starting December 26, 2020 and just now easing with vaccinations now started in the community. This last one was by far the worst with numbers rising to above 1600 new cases and 16 deaths per day at its peak.

We've only spent a few months last summer and a few weeks at Christmas out of lockdown. Unfortunately, the easing of restrictions at Christmas with people visiting their families, even though it was only for a few weeks, had a detrimental effect on our control of COVID.

Many rest homes previously unaffected were suddenly having outbreaks, losing a significant number of residents in a short time and having huge staffing issues. Some colleagues and I answered such a call for help one weekend. It was humbling to help the exhausted staff, who were trying to regroup and grieve for so many residents whom they had considered family, all while trying to desperately get supplies of fluids for the remaining residents — who were all positive with COVID.

At the time of writing this, we're just coming out of our (hopefully) final surge. With the introduction of vaccinations, even the hardened sceptics think the tide might actually be turning. Unfortunately, there are constant reminders that the world is still fighting, such as the surge in India. These act as reminders that no one remains untouched, with many of our colleagues losing loved ones recently.

Some positives

It has certainly been an interesting time to live in a new country and work in a health system under some of the greatest strain imaginable. There are some positive takeaways worth sharing though:

- I've never been so proud of nursing. Nurses are the first to move and adapt to whatever challenges come their way. They have worked so hard over the last year, under the most trying of circumstances. Many of them isolating themselves within homes and into hotels away from families and loved ones to protect them during this stressful time when they truly needed their support and love more than ever.

Covid-19

- It's made me realise that it is our role as senior nurses to make sure we appreciate and nurture resilience in our nursing workforce. The small things we do for each other are important. The generosity and love of the community was incredible and I will never forget the chills I felt as clapping and cheering rained out for the frontline workers at 8pm on a dark and cold night.
- I've never understood better what it means to bring your whole self to work. I now understand that through times of crisis, when you don't know what else to do, kindness, presence and time are sometimes your best default.
- I've had the unique opportunity to work with the most exceptional and inspiring nurse leader, who managed to be forever present over the last year. She put on a uniform (as did the rest of the senior nursing team) and walked the clinical areas every day, visiting nurses working on the frontline. She brought warmth and light, listening as they shared their experiences. Her door was literally always open and she was open and transparent about all decision making with all staff, regardless of role. She role-modelled and inspired other nurse leaders to advocate for both patients and staff at an organisational level under the most stressful and challenging of situations as presented by COVID.
- I've realised I need to do little more on a weekend than walk, yoga, eat, drink, read, sleep, repeat.
- I'll always admire the ability of the Irish to find an opportunity to laugh even in a crisis, but what a crisis really shows best is their caring and kindness.

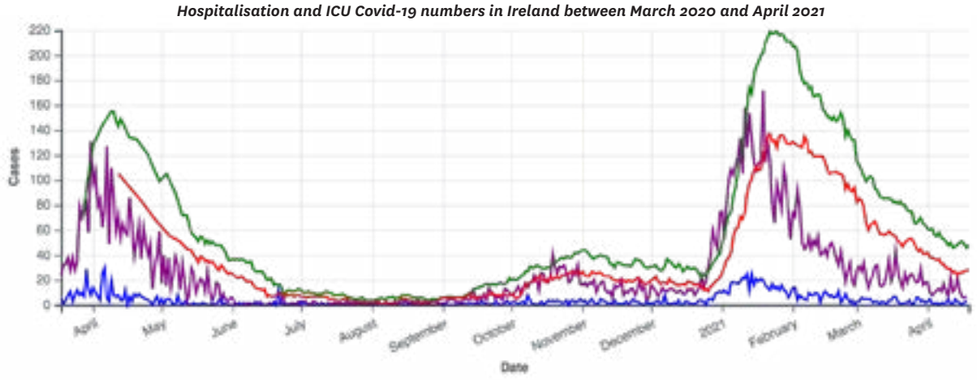
Each lockdown seems to have a different impact than the one prior.

Above: The original corridors inside the Mater Misercordiae Hospital. Left: Eccles Street entrance to the Mater Misercordiae University Hospital.

The first came with fear and public compliance was high. The second with a resignation and some community reluctance and resistance and the third with sheer exhaustion. There's guilt when we get frustrated about the unimportant things like being unable to have a haircut for six months and that we can't go and sun ourselves in Spain or Italy for a few weeks and instead spend holidays in our houses only going out for a walk or to buy food. And Brexit interfering with our Amazon purchasing.

We have managed to get a couple of frantic weekends away on the two occasions when lockdown eased and snuck away into the countryside to enjoy a few castle stays.

Hospitalisation and ICU Covid-19 numbers in Ireland between March 2020 and April 2021



Currently in ICU Currently ventilated Daily admitted to hospital Daily admitted to ICU

Covid-19

We've not managed to eat out much since we arrived, but thankfully some of the good restaurants started 'dinner boxes' where you just finish the meal off. So as foodies we've been able to still enjoy some really good food (wine optional), while not having to leave the couch, TV or change out of all-day activewear.

You learn to really be appreciative of what you have in an uncertain world and it's not easy. We all make allowances for those having hard days because everyone has them regardless of their situation.

Ivan and I both appreciate the ability to be able to work and interact with people every day. I miss simple human warmth such as touch and hugs, seeing someone smile, and comforting someone when they are upset. I'm looking forward to August when, with all going well, we can finally leave the country for the first time and have a well-earned weekend away. It will be nice to have a break from being asked what part of Australia I come from...

I blame the mask!

ABOUT THE AUTHOR

Tracey Lee RN,MN, is the Associate Nurse Director Workforce Planning and Development, Mater Misercordiae Hospital, Dublin, Ireland. Before her move to the Republic of Ireland, Tracey was Associate Nurse Director, Workforce Development, Education & Training, Perioperative Services, Auckland DHB. She also served on the Editorial Committee of *The Dissector* from March 2016 to September 2019.

FOOTNOTE

The Republic of Ireland occupies a land area of 70,273 km² - or about one quarter the area of New Zealand. Both nations have a population of around 5 million. Dublin's population is around 550,000 compared with Auckland's 1.7 million.

Sandymount, near our home in Ballsbridge, looking back at the famous Poolbeg twin chimneys.

business card directory

Fisher & Paykel HEALTHCARE

www.fphcare.com

Luda Kozlova
SALES MANAGER - SURGICAL HUMIDIFICATION
luda.kozlova@fphcare.co.nz

DD 09 574 0123 EXT 8835
M 021 849 109 T 0800 503 553 F 0800 658 923
Fisher & Paykel Healthcare Limited, O'Hare Building,
15 Maurice Paykel Place, East Tamaki, Auckland 2013
PO Box 14 348, Panmure, Auckland 1741, New Zealand

Fisher & Paykel HEALTHCARE

www.fphcare.com

Carolina Simic
PRODUCT SPECIALIST - SURGICAL HUMIDIFICATION
carolina.simic@fphcare.co.nz

DD 09 574 0123 **EXT** 8112
M 021 546 992 **T** 0800 503 553 **F** 0800 658 923
Fisher & Paykel Healthcare Limited, O'Hare Building,
15 Maurice Paykel Place, East Tamaki, Auckland 2013
PO Box 14 348, Panmure, Auckland 1741, New Zealand

Mel Slattery
Sales Manager
New Zealand

essity

BSN medical Limited
Suite 2-8, 72 Dominion Road
Mt Eden 1024
Auckland New Zealand
M +64 21 678 341
Mel.Slattery@essity.com
www.bsnmedical.co.nz

Customer Service
T 0508 276 111
F 0508 998 830

Joanne Macdonald
Business Development Manager, Hospital
New Zealand

essity

BSN medical Limited
Suite 2-8, 72 Dominion Road
Mt Eden 1024
Auckland New Zealand
M +64 21 678 338
Joanne.Macdonald@essity.com
www.bsnmedical.co.nz

Customer Service
T 0508 276 111
F 0508 998 830

---

bravura EDUCATION

Adj A/Professor
Elissa O'Keefe RN NP
Managing Director

p: +61 423 091 829 I 1300 001 808
e: elissa.okeefe@bravura.edu.au
w: www.bravura.edu.au

@bravura.edu.au Bravura Education

industry news

Sim.MOVE 800: a first for Simeon

German operating theatre equipment specialist Simeon Medical GmbH & Co. KG has developed its first operating table — the Sim.MOVE 800 — rounding off the company's portfolio of surgical equipment, which includes surgical lights, camera systems, a video management system, and ceiling-mounted supply units.

The Sim.MOVE 800 incorporates a my.LIGHT function, with clearly coded light signals to increase user-friendliness. Here the status indicator confirms successful completion of started processes and charging.

"The development of the Sim.MOVE 800 is a real milestone for us," says Dr. Markus Keussen, Managing Director of Simeon Medical. "It allows us to strengthen our position as a solution provider for the entire hospital and make every day working life easier for operating room staff."

Simeon placed early emphasis on dialog with expert medical professionals during the development of the Sim.MOVE 800. The knowledge gained from this collaboration, combined with the company's 20 years of experience in the surgical field, resulted in an all-new table that facilitates everyday work in the OR while increasing patient safety and comfort.

To simplify the changeover between different theatre disciplines, the Sim.MOVE 800 can be easily adapted to all conditions, making it suitable for all common applications. It can be used in **hybrid operating theatres**: with its large longitudinal translation and an extended X-ray window, a change to an X-ray table is no longer necessary. Thanks to its high maximum load of 454 kg, the table can also be used for **bariatric patients**. The 400 mm mattress platform allows a flexible intra operative use of a C-arm without having to reposition the patient.

Thanks to an optional fifth extendable wheel in the table base, the Sim.MOVE 800 is effortlessly manoeuvrable. The optional "2-DRIVE" traction drive helps it move smoothly even under maximum load, allowing patients to be effortlessly and safely introduced to the OR through the patient airlock.

To test the real-world suitability of the Sim.MOVE 800, a comprehensive usability study was conducted at the Institute of Medical Technology at RWTH Aachen University in cooperation with the University Hospital of Aachen under the direction of Dr. Armin Janß. Particular emphasis was placed on the patient positioning display provided by "my.LIGHT" and the hand control.

"The "my.LIGHT" functions eliminate operating errors to the greatest possible extent and increase safety when using the operating table in everyday surgery. The control is quick to learn and easy to memorize. We can therefore confirm the user-friendliness of the table based on our study," says Dr. Janß.

In addition to the three most common pre-installed table positions Flex, Beach-chair and Wake-up, up to five additional positions can be

business card directory

DEVICE TECHNOLOGIES

Haines MEDICAL AUSTRALIA

AMBER MCLEOD
PRODUCT SPECIALIST, HOSPITAL CONSUMABLES

AMCLEOD@DEVICE.CO.NZ
M +64 21 589 881 | P +64 9 913 2000 | D +64 9 215 0975
47 ARRENWAY DR, ALBANY, AUCKLAND, NEW ZEALAND

DEVICE.CO.NZ

DEVICE TECHNOLOGIES

CHRIS WILLIAMS
PRODUCT SPECIALIST - THEATRE CAPITAL

CHRIS.WILLIAMS@DEVICE.CO.NZ
M +64 21 589 887 | P +64 9 913 2000 | D +64 9 215 0982
47 ARRENWAY DR, ALBANY, AUCKLAND, NEW ZEALAND

DEVICE.CO.NZ

DEVICE TECHNOLOGIES

MIKE SIDDELLS
COUNTRY MANAGER NZ

MSIDDELLS@DEVICE.CO.NZ
M +64 21 589 889 | P +64 9 913 2000 | D +64 9 215 0989 | F +64 9 913 2009
47 ARRENWAY DR, ALBANY, AUCKLAND, NEW ZEALAND

DEVICE.CO.NZ

DEVICE TECHNOLOGIES

TIM MESSENGER
SALE AND SERVICE SPECIALIST – SOUTH ISLAND

TMESSENGER@DEVICE.CO.NZ
M +64 21 197 2472 | P +64 3 925 8567
47 ARRENWAY DR, ALBANY, AUCKLAND, NEW ZEALAND

DEVICE.CO.NZ

---

schülke

Anna Page RN
Product Specialist - NZ

Schulke New Zealand Ltd
PO Box 95, Auckland 1140
Mob 021 978 849
Orders & Enquiries 0800 724 855
anna.page@schuelke.com | www.schuelke.co.nz

OPRITECH
THEATRE EQUIPMENT SPECIALISTS

Brett McLean
General Manager
0800 32 40 32 Ext. 240
brett.mclean@opritech.co.nz

Customer Care 0800 32 40 32
Follow us: opritech.co.nz

OPRITECH
THEATRE EQUIPMENT SPECIALISTS

Annette Moffatt
Account Manager
021 587 031
annette.moffatt@opritech.co.nz

Customer Care 0800 32 40 32
Follow us: opritech.co.nz

OPRITECH
THEATRE EQUIPMENT SPECIALISTS

Stuart Marryatt
Account Manager
021 562 519
stuart.marryatt@opritech.co.nz

Customer Care 0800 32 40 32
Follow us: opritech.co.nz

CUBRO

Rick Clare
Account Manager
0800 452 273 ext. 8542
021 427 409
rick.clare@cubro.co.nz

Customer Care 0800 656 527
Follow us: cubro.co.nz

CUBRO

Arne Moxham
Account Manager
0800 452 273 ext. 8940
0212 216 214
arne.moxham@cubro.co.nz

Customer Care 0800 656 527
Follow us: cubro.co.nz

The Sim.MOVE 800 comes with a multi-function wireless remote control.

stored via the memory function in the hand control. This allows users to adjust the optimal table position and orientation in just a few simple steps.

For more information on the Sim.MOVE 800, contact Simeon's exclusive New Zealand agent, **Keyport Medical Ltd.**, 21 The Boulevard, Te Rapa Park, Hamilton. Telephone: 07 849 3766, or 07 848 3672. After hours: 027 493 9046. **Email:** info@keyport.co.nz — **or:** sales@keyport.co.nz

Continuing Cubro-Opritech collaboration

The collaboration continues between Tauranga-based Cubro and Nelson's Opritech following Cubro's acquisition of the company late in 2020, with Account Managers covering the length of the country.

Operating out of Auckland is **Stuart Marryatt,** who has worked in the health sector for over 18 years. A keen problem solver, he enjoys working closely with clients to understand their challenges, so he can help find the right solutions. Stuart has extensive knowledge of Opritech's range of operating theatre equipment.

Wellington's **Annette Moffatt** has 15-years' experience working in various account management roles in the health sector, as well as 20 years in the nursing profession. Annette consistently goes the extra mile to deliver exceptional service.

Working from Opritech's office in Nelson is **Brett McLean.** With 25 years' experience in the health sector, Brett is passionate about working with New Zealand hospitals to deliver world-class solutions that transform the way surgical teams work. With an extensive engineering background and a passion for cutting-edge technology, Brett leads the team to recommend and install all operating theatre equipment.

On the Cubro side of the business and based in Tauranga, **Arne Moxham** has been an Account Manager coming up for 10 years. During his time at Cubro he has received on-going training from the company's global suppliers and in-house clinical team. Through this, Arne has gained extensive technical knowledge of Cubro's hospital equipment range.

Also based in Tauranga and part of the Cubro team is **Rick Clare,** who joined in March 2020 and works alongside Arne. In his time at Cubro he's received in-depth training from global suppliers and the in-house clinical team and has quickly built his knowledge of the hospital equipment range.

Please refer to the business card directory for contact details for each Account Manager.

Familiar names under Essity banner

The name of the company may have changed, but the products remain the same — and so does most of the staff in New Zealand.

BSN medical has been a well-recognised name in healthcare and since its acquisition by Essity AB in 2017, the established and trusted brands like PROPAX®, LEUKOPLAST®, DELTACAST®, HYPAFIX®, FIXOMULL®, JOBST®, GYPSONA® and CUTIMED® remain in earnest and will continue to provide best in class performance and care.

In May 2021 Essity acquired the distribution rights for the Sorbact range of advanced wound care products in Australia and New Zealand. This further strengthening its position in the ability to treat a wide variety of indications and wound types.

"Our commitment to serving our customers and finding our place within the broader healthcare community remains a core part of our offer in the Operating Theatre, Woundcare, Fracture, Soft Tissue, Vascular and Lymphoedema spaces," the company says.

Essity has approximately 48,000 employees world-wide. The name Essity stems from Essentials and Necessities.

"When it comes to fitting your needs, Essity has you covered," says New Zealand Sales Manager Mel Slattery. "You can trust Propax® Customised Procedure Packs to provide high quality products. Our New Zealand-based team and sterilising and manufacturing operation are well placed to work with you and your requirements," she adds.

"In addition, the Leukomed® range is designed to support a wide range of clinical and patient needs for acute and surgical wounds. The team at Essity is committed to providing you both clinical and cost-effective solutions. We also supply drapes and gowns and have the ability to make changes to pack locally to suit your requirements," she adds.

Mel Slattery may be contacted on **021 678 341.**

The rest of the Essity team in New Zealand will be familiar to Perioperative Nurses:

Dennis Irving, Key Account Manager – 021 558 900; **Joanne MacDonald,** Account Manager - Hospital – **021 678 338; Arlene Geraghty**, Clinical Sales Specialist – **021 678 348; Lauren Hillis**, Clinical Sales Specialist – **021 678 267; Lindsay McCord**, Account Manager – **021 678 352; Angela Meehan**, Account Manager – **021 678 237; Carrie Siddall**, Account Manager – **021 768 472.**

KARL STORZ in New Zealand

Since 1945, the KARL STORZ family company has grown into a global manufacturer and distributor of endoscopes, medical instruments, and devices. Recent developments include digital documentation systems and comprehensive operating room concepts.

The product range has been represented in New Zealand since 1986 by Medipak Surgical NZ Ltd, operating from an office/warehouse in Auckland. Now, after three decades, Karl Storz has acquired direct distribution and re-branded Medipak Surgical as KARL STORZ Endoscopy New Zealand Limited.

While the new company is a subsidiary of the German parent and is fully integrated into the globally active KARL STORZ Group, operations continue from the same Auckland location, staff, and service as previously. With access to global resources to further enhance customer support in the training and promotion of new technologies and techniques in New Zealand, KARL STORZ Endoscopy New Zealand Limited will continue contributing to optimal patient treatment. Contact: **sales@karlstorz.co.nz**

Free Phone: **0508 84 84 84;** Website**: www.karlstorz.com**

STORZ
KARL STORZ — ENDOSKOPE

BAMFORD

ALEX BAMFORD
General Manager
E alex@bamford.co.nz
M 022 385 9441
P 0800 226 3673
W bamford.co.nz

12 Victoria St, Lower Hutt, 5010
New Zealand

BAMFORD

CAMERON WEITZ
Dip. Applied Science (Anaesthesia)
Clinical Manager
E cam@bamford.co.nz
M 021 764 009
P 0800 226 3673
W bamford.co.nz

12 Victoria St, Lower Hutt, 5010
New Zealand

BAMFORD

CATHY CHIRNSIDE
RGON
Territory Manager
E cathy@bamford.co.nz
M 027 218 3186
P 0800 226 3673
W bamford.co.nz

12 Victoria St, Lower Hutt, 5010
New Zealand

BAMFORD

KATHERINE VENN-BROWN
BSc. Dual Hons. Dip.M
Business Development Manager
E katherine@bamford.co.nz
M 027 442 1014
P 0800 226 3673
W bamford.co.nz

12 Victoria St, Lower Hutt, 5010
New Zealand

DefriesIndustries
New Zealand

Wayne Titmus
New Zealand Sales Manager
m: +61 448 043 275
e: wayne.titmus@defries.com.au
www.defries.co.nz

business card directory

Medical Imaging tests, an overview

Title: FUNDAMENTALS OF DIAGNOSTIC IMAGING:
An introduction for nurses and Allied healthcare professionals
Editor: Anne-Marie Dixon
Publisher: Springer Nature (2019)
Reviewer: Gillian Martin
Price: $55.00
ISBN: 978-1-906052-10-2
Supplier: This book was purchased online from Ubiq / University Bookshop Ltd in Auckland. Other suppliers are available on-line. Price is approximate.

This text provides an introductory overview of a wide range of commonly encountered medical imaging tests including plain film radiography, CT and Nuclear Medicine, and non-ionising imaging techniques such as Ultrasound and MRI.

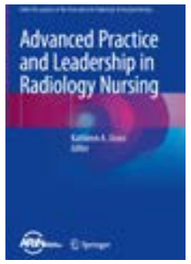
book reviews

Each chapter has an initial section explaining "how the technique works" and a second section describing "what the technique is used for". Learning is supported with case studies, activities, explanations of technical procedures and terminology, diagrams and photographs.

This book will appeal to Nurse Educators who need to provide basic introduction to diagnostic imaging for "new to radiology " nurses , ward nurses needing knowledge of what happens to their patients when they visit radiology and student nurses.

A good resource to accompany departmental orientation and achievement of clinical competency for the Radiology Nurse.

An important contribution to radiology nursing practice



Title: Advanced Practice and Leadership in Radiology Nursing
Editor: Kathleen A. Gross
Publisher: Springer Nature (2019)
Reviewer: Shona Matthews
Price: $110.00 (hard cover edition)
ISBN: 978-3-030-32679-1

Radiology Nursing as a developing nursing specialty faces many challenges, not least the development of a specialised knowledge base and available resource literature.

The rapid growth in imaging and introduction of new diagnostic imaging and therapeutic procedures which the nurse must understand to be able to provide safe and effective patient care adds to the challenge.

This comprehensive radiology nursing textbook edited by Kathleen Gross; Editor-in-Chief for the *Journal of Radiology Nursing (JRN)*, makes an important contribution to radiology nursing practice by presenting a strong evidence base.

In the Preface Kathleen says: *No nursing specialty has piqued my interest as much as radiology nursing because of its relative newness as a nursing specialty and evolving nature but mostly because of the demands it places on the nurse. I once said that working in radiology was like "practicing in a sea of contrast media: the environment is fluid, the situations can be 'sticky', and all actions and reactions are highly visible"* (Gross, 2014)

The textbook is subdivided into five sections that address advanced practice and leadership roles, clinical patient care topics, safety topics covering everything from contrast reactions, infection prevention, radiation safety, magnetic resonance safety to patient falls.

It includes a section with topics impacting the patient experience like health literacy, legal and ethical considerations for radiology procedural consent and telephone communication. The final section looks at professional topics such as cybersecurity, social media, research outcomes, interprofessional collaboration and current trends in imaging.

The authors include advanced practice providers, radiology nurse managers, educators, physicians, radiologists and a social worker and many other experts in their fields.

While some sections are more relevant to the American healthcare setting, it still contains a wealth of material for New Zealand Medical Imaging Nurses and nurses working in a critical care, emergency or perioperative setting. Above all it is very readable, and the layout makes it easy to explore specific topics or find inspiration. The 340 pages also include a great range of diagrams, imaging from all modalities and photographs. The book would be a valuable addition to radiology department libraries.

It is available in both hard copy and as an e-book through the Association of Radiology and Imaging Nurses (ARIN) website with member discount offered, or through Springer Publications.

REFERENCE: Gross, K. (2014). Core curriculum for radiologic and imaging nursing. 3rd ed. Association for Radiologic and Imaging Nursing.

SIMEON MEDICAL

PUSHING TECHNOLOGY TO EXCELLENCE

Keyport

Specialist Medical Equipment and Services

www.keyport.co.nz

Tel: 0800 Keyport Email: sales@keyport.co.nz

Sim.MOVE 800

Business-class with high-end characteristics

A table for all occasions: SIMEON presents a mobile operating table for maximum OR flexibility.

Combining SIMEON's 20 years' in manufacturing medical technology products for the OR, the all new Sim.MOVE 800 is a true multi-functional operating room table.

Developed in close cooperation with surgeons, the Sim. MOVE 800 is a practical user-friendly product that makes working in the OR easier while helping increase patient safety.

Universally applicable for all common applications and specialist areas with an extremely durable 454 kg (static) maximum load.

- General Surgery
- Neurosurgery
- Thoracic surgery
- Minimally Invasive surgery
- Gynecology and urology
- ENT/CMF/Ophthalmology

SIMEON MEDICAL your OR solution provider