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AUTUMN 2023

TECHNOLOGY ISSUE

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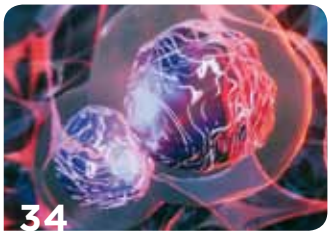

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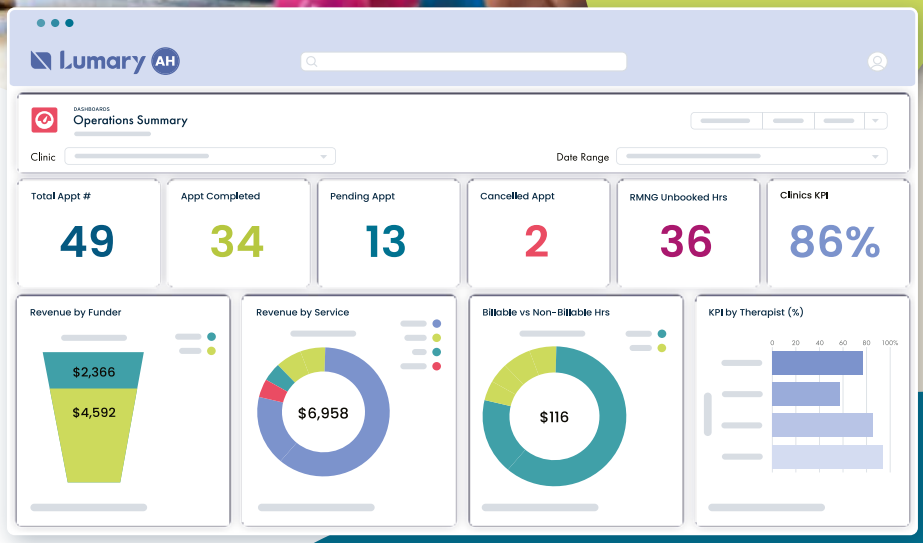

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Welcome to our Autumn issue

Around seven million people, or 28% of the Australian population, live in rural and remote areas, according to the Australian Institute of Health and Welfare.

The rate of disease burden in remote and very remote areas is 1.4 times as high as that for major cities, but these areas are said to have 50% less health providers compared to major cities.

A recent paper published in *BMC Health Services Research* suggests telehealth could play a vital role in improving health access in remote Australia when complemented with adequate face-to-face services. The paper recommends careful workforce planning and reliable and affordable internet connectivity are needed to make full use of telehealth consultations. Local Aboriginal staff trained to work as digital navigators could ensure a culturally safe clinical environment for telehealth consultations and promote the effective use of these services in the community, according to the paper.

While some progress is being made in improving rural and remote health outcomes, staff shortages, lower health literacy, poor digital infrastructure, stigma and transportation issues continue to present barriers in ensuring equitable access to care in these locations.

This issue's lead article details how, despite challenges, the East Metropolitan Health Service (EMHS) in Western Australia is making headway with its virtual offering, known as 'HIVE' (health in a virtual environment), which it now uses to monitor 50 inpatient beds across two of its hospital sites — Royal Perth and Armadale — more than 30 kilometres apart.

Patient safety and the role of technology, obesity, robotic-assisted bronchoscopies, intelligent automation to tackle care challenges, wound care and management, infection prevention and control, and the future of pharmacy are some of the other topics covered in the issue.

Happy reading!

Mansi Gandhi
Editor, H+H
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The impact and benefits of Unique Device Identification (UDI) for hospitals and patients


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Catherine Koetz, Director — Healthcare, GS1 Australia

With new Unique Device Identifier (UDI) regulations pending in Australia, now is the time for health providers and hospitals to understand the benefits to their organisations and patients and to start to planning. Here are some points to start the process.

What are the potential benefits of UDI implementation?

The benefits are many but have dependencies on technical capability. For those organisations that are less digitally enabled and without a clinically integrated supply chain it may take longer to realise the benefits. Some known benefits:

- **Improved patient safety and outcomes:** Through more accurate and efficient tracking of medical devices and equipment used in patient care, reducing the risk of errors and adverse events.
- **Traceability-enabled recall automation:** By identifying and tracking devices through to the patient system-based processes can be used to speed up and more accurately manage recalls.
- **Enhanced supply chain management:** By providing consistent baseline identification of all medical devices inventory can be more effectively managed in real-time, knowing the location, status, and usage of medical devices. Reduction of waste, optimised ordering and restocking processes can be improved, leading to cost savings.
- **Better data analytics and decision-making:** The use of UDI can provide a rich source of data for analysis and decision-making not only within hospitals but also for the whole health system.

How will UDI implementation in Australia benefit patients in the future?

The changes that the implementation will bring within care settings will be mirrored in benefits for Australian patients and their care teams. The most immediate improvements to patient safety, greater accuracy of medical records and recalls management are obvious. The flow of support for research and ongoing improvements to how care is provided and managed — including supporting 'value based' methodologies — is significant.

How can hospitals and health providers prepare, and maximise organisational and patient benefits?

Ahead of the release of regulations related to the UDI system, several actions would be recommended. The below are a start, as each organisation considers their digital maturity across the patient pathway and supply chains.

- **Assess readiness:** Hospitals should assess their readiness for implementing UDI within their processes by reviewing their existing technology solutions, supply chain management processes, clinical processes and staff training programs. This should identify areas that require improvement or significant changes and enable organisations to prioritise actions accordingly. Understanding the contact points between the supply chain and clinical processes.
- **Engage with suppliers:** Hospitals and health providers should engage with their suppliers to ensure that they are aware of the impending regulations and the need to move towards compliance with the UDI requirements for medical devices. The regulations will have different impacts and timeframes based on the type of device and risk. Ensuring alignment and inclusion in category management and sourcing discussions will help to drive early compliance and benefits.
- **UDI implementation knowledge within core teams:** Hospitals should ensure sufficient UDI knowledge within teams that are managing core programs related to the supply chain and any areas of clinical integration such as Electronic Patient Records.
- **Develop implementation plans to embed within transformation programs:** Many hospitals and health provider organisations are already undertaking significant transformation projects related to inventory management, procure to pay, reimbursement and patient records. It is important within the organisation's Project Management Offices a review of projects is completed to identify points where UDI changes will be relevant and then collaborate with teams. Any plans should include timelines and milestones, as well as risk management strategies. Projects that are impacted could include technology updates across organisations, barcode scanning deployment to ensure support for the global data standards, supply chain transformation programs, patient records, theatre management and staff training.
- **Managing the change messaging:** Ideally, any impact of UDI should be incorporated into training plans, versus requiring separate activities as this will ensure it is seen as part of how they work versus something else they have to do. Covering the purpose and benefits of the UDI system, how to capture UDI data using barcode scanning technology, and the use of UDI data to improve patient safety and supply chain management are simple messages that can be woven into existing plans.

Where should hospitals and health providers start their preparation?

Australian hospitals and health providers can take several actions to prepare, including assessing readiness, engaging with suppliers, establishing implementation teams, developing implementation plans, providing staff training, and monitoring compliance. By taking these actions they can ensure that they are well prepared to maximise the benefits for patient safety and business operations.

We recommend organisations start by finding out more from the Therapeutic Goods Administration (TGA).

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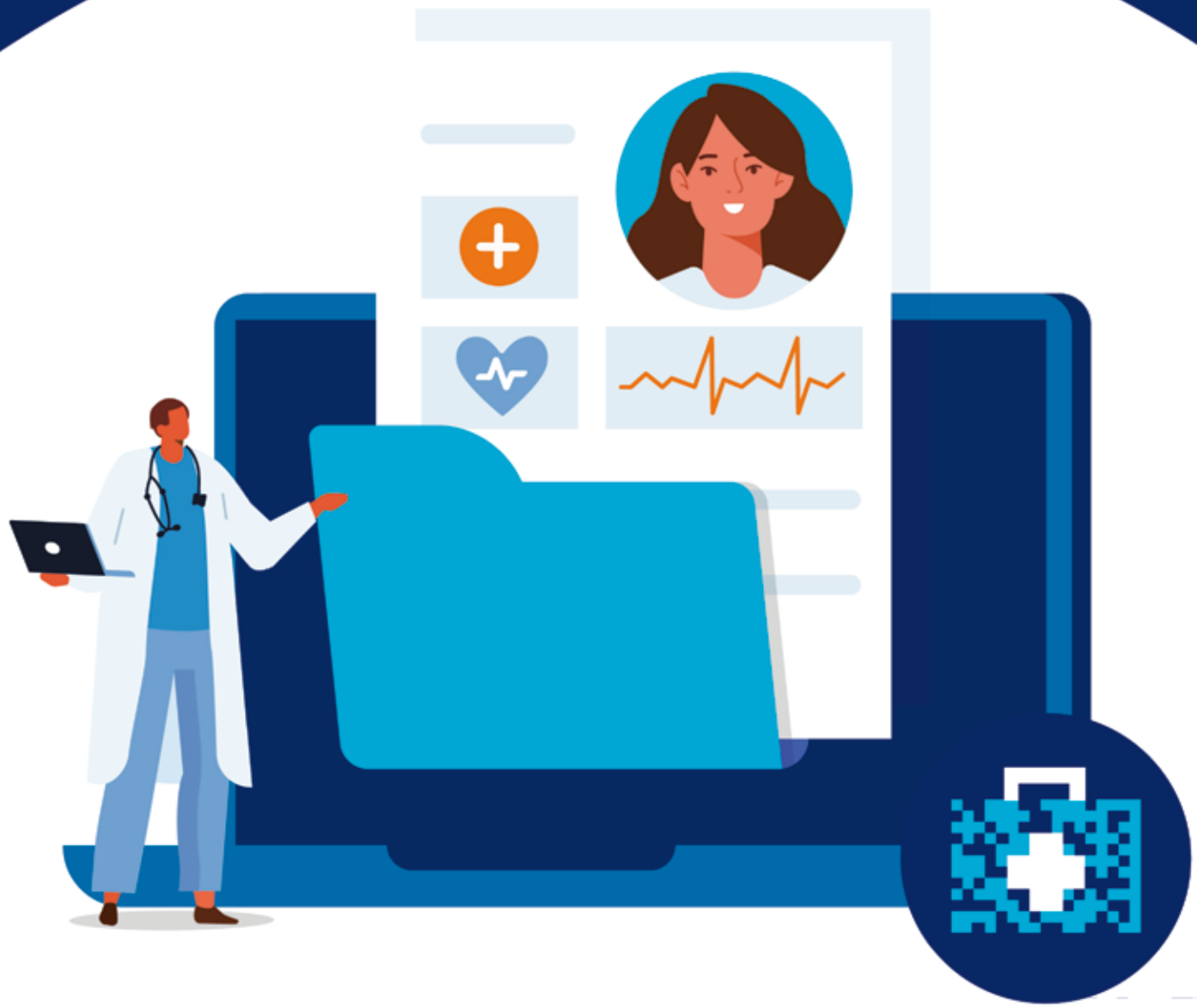

The Rounds
Updates in health care

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New drug for high cholestrol patients cuts heart attacks by 23%

A four-year, worldwide clinical trial of a new drug containing bempedoic acid, involving 14,000 people in 32 countries, has shown to help patients lower low-density lipoprotein (LDL) cholesterol by 20–25%.

The trial, published in the *New England Journal of Medicine (NEJM)*, also demonstrated the following benefits: reduced cardiovascular complications by 13%; reduced heart attacks by 23%; and reduced coronary revascularisations (a procedure to open blocked arteries) by 19%.

More than 300 Australian patients with high cholesterol took part in the research and trial co-led by Professor Stephen Nicholls, Director of the Victorian Heart Hospital and Victorian Heart Institute, based at the Monash University Clayton campus.

Currently, 2.5 million Australians take statins to lower their cholesterol. Nicholls said about 20% of patients on statins had tolerance issues and about 50% of high-risk patients didn't get their cholesterol down to target levels so they need other options.

"This new drug provides another option for lowering cholesterol and is particularly important for patients that cannot tolerate statins. That's a real problem in clinical practice which limits our ability to effectively lower cholesterol in many patients,'' Nicholls said.

"It has the potential to help between 100,000 and 500,000 people in Australia."

Called Nexletol, the drug is being developed by US-based Esperion Therapeutics and will go to the Therapeutics Goods Administration for approval for use in Australia. Nicholls said he expected the drug to be available for Australian patients in the next two years.

Record demand for Lifeline amid cost-of-living crisis

Data from Lifeline's search engine shows there were over 26,000 searches for assistance and support in January 2023 across Australia, the highest on record.

In addition, referral searches by Lifeline's helpline counsellors specifically relating to financial issues and homelessness went up 49% between August 2022 and January 2023.

Lifeline has 41 centres across Australia. Some of these centres offer face-to-face crisis support and counselling, including financial counselling.

Lifeline Australia CEO Colin Seery said, "Many of these centres are reporting a significant increase in demand for financial support, including food distribution. We are seeing this happen right now, all across the country.

"Our centres are reporting an increase in help seekers who have never experienced financial stress before. And we know cost-of-living pressures also disproportionately impact the most vulnerable, including people who are unemployed, renters and young families."

Lifeline Australia's Chief Research Officer, Dr Anna Brooks, said that financial stressors are not isolated to those who have a mortgage, with interest rate increases flowing through to generate higher rental costs and other economic pressures.

"Financial stress and uncertainty can contribute to mental ill health. There is also evidence to suggest that people can experience distress and suicidal thoughts when facing financial stress and uncertainty."

People experiencing distress can call Lifeline: 13 11 14.

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Bio-printed 'patches' could repair dead heart tissue

Researchers from The University of Technology Sydney (UTS) have demonstrated that bio-engineered heart tissues could one day safely and effectively help patients recover from the damage caused by an extensive heart attack.

The findings, in mice, have been published in the academic journal *Bioprinting*.

The new technology creates personalised 'bio-inks' made of a patient's own stem cells. The 'bio-inks' are then used to 3D-print cardiac tissues to repair areas of dead tissue caused by heart attacks.

"Thanks to our study we have a better understanding of how bioengineered heart tissues work in the body after their transplantation," said Dr Carmine Gentile, head of the Cardiovascular Regeneration Group at UTS.

"Our study demonstrated that bio-engineered patches were the best and most robust treatment of heart failure — patches generated with other approaches either did not induce any improvement or the improvement was inconsistent.

Further testing for long-term effects of this technology is underway before clinical trials start. Heart Research Australia is a key funding partner of the research.

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How the East Metropolitan Health Service **is leading the way with virtual health**

Amy Sarcevic

Australia's push towards virtual health is gaining pace, with more than 18 million patients accessing their medical appointments virtually last year, through telehealth. For many healthcare providers, however, a fully fledged virtual service is a far-off dream.

Technology is yet to cater for all aspects of healthcare delivery, with a wide range of services still requiring in-person assessment. Only 95,000 of Australia's 642,000 health practitioners delivered a telehealth appointment last year — a large portion of those held back by a lack of virtual aids in their field.

For services that do lend themselves to existing technologies, challenges around data and integration are stunting progress. Not all health systems can talk to each other and electronic records don't always capture information from every episode of a patient's care, resulting in a fragmented data ecosystem. This limits the efficacy of technology-based assessments — a vital component of virtual health.

Despite these challenges, the East Metropolitan Health Service (EMHS) in Western Australia is making headway with its virtual offering, known as 'HIVE' (health in a virtual environment), which it now uses to monitor 50 inpatient beds across two of its hospital sites — Royal Perth and Armadale — more than 30 kilometres apart.

Its award-winning computer platform digests huge amounts of data from bedside monitors, admission forms, onsite pathologists and a range of other sources, to give a complete picture of the patient's condition. It alerts staff to signs of clinical deterioration, allowing them to make rapid-fire decisions about who to treat, when and how. Given the breadth of its data repository, there is little room for clinical oversight.

Project Manager Eliza Becker said the technology has helped reduce the length of hospital stays for HIVE patients by an average of 2500 bed days per year. This translates to a reduced risk of hospital-acquired infections, muscle wastage and other undesirable side-effects of extended bedrest.

"HIVE has a dedicated virtual workforce that continuously monitors the technology and contacts bedside teams when an alert is provided. It helps focus their attention on those who are most critically unwell and eliminates some of that noise that comes from a busy hospital environment. This helps the patient to get optimal treatment and, ultimately, get better quicker than before HIVE existed," Becker told *Hospital + Healthcare*.

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Peripheral benefits

As well as offering real-time insights to clinicians, the data repository is helping the hospital identify retrospective trends and make longer-term decisions. When pulled together, information such as length of stay, vital statistics and key diagnoses are useful tools for developing healthcare initiatives.

"This is a peripheral benefit of HIVE and certainly not part of core business. But, by virtue of the fact we are analysing data for clinical impact, we also have more data to aid research. This helps us see if there are any common themes on which to base new developments; and to care for patients more broadly — not just in the moment," Becker said.

Meanwhile, HIVE's advanced audio-visual (AV) system and high-tech camera have been helping to train EMHS staff.

"It's been a great support tool. Junior doctors and nurses have the option to use the AV to access 24/7 supervision from senior colleagues, who may be elsewhere in the hospital, or off-site. Doctors can just login and talk the juniors through things whenever they need help."

Solving the integration challenge

Its ability to make sense of data from dozens of different sources has been key to the technology's success — a feat only made possible with cross-functional teams, Becker said.

"I sit next to an engineer, a mathematician and a data scientist, each of whom are employed permanently by the hospital. We have also had a lot of discussions with people around the bedside and those who deliver care. Doctors and nurses have helped decide how our system looks and have worked directly with technical staff to build a system that's fit for purpose. It's the product of months of talking and consultation."

Workflow integration

The blending of technical and clinical teams has also helped the hospital navigate challenges around workflow integration.

"As well as data, there can be difficulties with integrating new ways of working. Having clinicians involved at every step has made this a smoother process. From their perspective, it's much better to use something they helped design than to get handed a new tool and ordered to change the way they work without consultation. Besides, having clinical 'allies' is much more insightful than a project resource ever could be," Becker said.

Going forward, Becker said the hospital plans to develop its in-house technical skills further.

"Virtual health is only going to get more prevalent, so it makes sense to build this capacity within our organisation and set ourselves up for the future. I would encourage other hospitals to do the same," she concluded.

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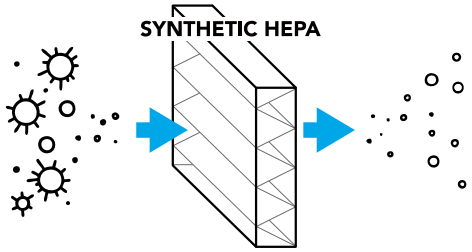
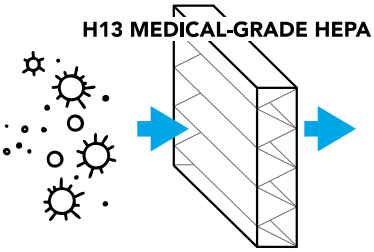
HEPA Filter Types

HEPA air purifiers commonly use either a synthetic pleated HEPA type filter or medical-grade, EN1822-rated HEPA paper.

HEPA 'type', commonly synthetic filters are made from polypropylene media with an electrostatic charge, the charge improves filter efficiency so the filter media will let through fewer particles. Synthetic filter media is used for 2 reasons; it's lower cost to manufacture and it creates less pressure drop, so the fan in the air purifier can be smaller.

The electrostatic charge on the filter media essentially magnetises the filter material to hold and capture more dust and particles, however, the caveat is the charge dissipates over time and causes the efficiency to reduce. In tests performed on synthetic filters we have seen a reduction from 99.95%, down to less than 75% during six months of use.





Synthetic filters usually cannot be certified as some ultrafine particles will penetrate the filter and therefore fail the stringent EN1822 efficiency tests. By contrast, HEPA paper, also known as glass paper, maintains the same very high efficiency for the life of the filter.

Key Points

The majority of air purifiers are not medical-grade filters (H13/H14 efficiency) and contain synthetic filters with lower E11 - E12 efficiencies.

Buyer Beware: synthetic HEPA-type filters using materials like polypropylene do not maintain the stated efficiency for the life of the filter, HEPA paper is the only material guaranteed to maintain efficiency for the life of the filter. Synthetic filters use an electrostatic charge on the filter material which assists efficiency but over time the charge is lost and so is the efficiency.

Bigger is better: the larger the size of the filter surface area (usually measured in m^2) increases the efficiency of the filter due to a larger contact area. When comparing air purifiers look for the largest filter in size.

Air purifiers that direct airflow in all directions tends to recirculate their air at lower speeds making them less effective.

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Patient safety and the role of technology

Janet Seaton, Clinical Product Manager, InterSystems

We hear a lot about the under-reporting of medication errors in hospitals but far less about the impact of erroneous reporting systems on staff morale. The trajectory of my own career might offer some useful insights in how to fix these and other serious healthcare issues.

On my third day as a qualified nurse, I earned a disciplinary hearing. Somehow, I missed administering a daily dose of warfarin to a patient recovering from a hip replacement. Without the essential blood thinning medication, they could have suffered an embolism or died. I was devastated. In the months that followed, doubt plagued me. How had I made such a critical error?

As it turned out, I hadn't. I later found out that faults in the hospital's paper-based record systems caused the mistake. This knowledge brought personal relief, but it did nothing to fix the underlying data problem.

The warfarin incident convinced me that data underpins our industry's greatest successes and failures. Experiencing its power firsthand drove my transition from nursing to clinical informatics.

Now, as a clinical product manager at InterSystems, I spend my days collaborating with colleagues to replace slow, siloed, opaque systems — like the one that earned me my first and only disciplinary hearing — with streamlined ones that harmonise data and processes.

When I work with healthcare organisations to ensure they can make the most of rapidly advancing technology, I reflect on what I learned during a decades-long career in the field. Here are the insights that'll always stick with me. I hope they help you overcome your next informatics-related challenge.

Data insights for improved outcomes

A few years after the warfarin incident, I fixed the broken system that caused it. I was working in the healthcare organisation's clinical audit department, and medication safety was a top priority.

Partnering with the nursing division's leaders, I implemented a system for logging medication incidents. It was still the early days of computing, so when teams submitted paper reports, I manually entered the information into Excel.

A steady flow of data into the electronic files helped us pinpoint and analyse the issues disrupting care and threatening patients. We found that it wasn't always clinicians, but poorly managed operational systems, that tended to cause chronic mistakes.

Our innovative use of data mapped so many avenues to enhance medication safety that the hospital hired a full-time employee to implement the changes. The benefits that followed directly resulted from the improved reporting system.

Data provided meaningful insight into our systems that empowered clinicians to improve patient outcomes at scale.

Collaboration unites technology and operations

That initial informatics role grew and soon encompassed oversight of a risk management information system that included medication incidents. The difficulty of managing the system multiplied with its scope. I wore myself out chasing down incident reports and responding to ad hoc requests.

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"Active listening has been central to my success. It helped me glean insights that led to the development of digital systems to better support practitioner needs."

Then it hit me. I couldn't advance the system alone. It would take site-wide and system-wide collaboration. I brought everyone together to share our likes and dislikes in group meetings. Together, we determined that our reporting system needed updates. These collaborative feedback sessions ensured that everyone was invested in the system and that managers understood their reporting obligations — critical factors for its success.

The meetings helped us locate blind spots in the design that took a year and a half of work to clear up. They also proved that collaboration could unite technology and operations, allowing healthcare organisations to transform user feedback into efficiencies that bring the true benefits of digital solutions to life.

Active listening, key to success

My career in clinical informatics started with active listening. I learned the term at a conference and, within the year, was studying the field at the Royal College of Surgeons of Edinburgh.

Since then, active listening has been central to my success. It helped me glean insights that led to the development of digital systems to better support practitioner needs. The best example comes from my recent experience implementing the InterSystems TrakCare Advance Program.

To ensure the solution met the demands of more than a dozen hospitals, we created safe spaces where users could share their thoughts and expectations. Then, we combined these findings with data about how they used the system, ultimately creating a report on how to better adopt the solution.

Thanks to the transparent conversations, we prioritised and executed adoption tools and developments that improved the systems for practitioners, streamlining access to insights that clinicians could use to advance care and avoid costly errors.

Data should improve care, not impede it

I can clearly recall my trepidation after the warfarin incident. Without reliable systems to support caregivers, it felt like one decision could lead to countless errors. Pitfalls hid everywhere, and we had no map to help pinpoint them.

Thankfully, we're building better maps every day. Clinical informatics is dramatically enhancing safety and care for patients while protecting practitioners and patients from unnecessary risk.

I'm proud to have contributed to a healthcare ecosystem where fewer young clinicians must face disciplinary hearings more rightfully attributed to their outdated systems — because data should be a pathway to better care, not an impediment.

*Janet Seaton is a Clinical Product Manager for InterSystems, a creative data technology provider dedicated to helping customers solve the most critical scalability, interoperability and speed problems. Janet has over 35 years of experience in clinical services, healthcare quality and informatics and has led healthcare organisations to achieve Stages 6 and 7 of the HIMSS Electronic Medical Record Adoption Model (EMRAM).

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Robotic-assisted bronchoscopies could help reduce cancer deaths

Georgia Gowing

A Macquarie University clinical trial of robotic technology that allows doctors to access tiny nodules in the farthest reaches of the lungs is showing promising results.

At just 37 and with two children aged five and seven, laboratory technician Cindy Gomez received the chilling news that she had a small growth deep in her right lung.

Gomez's GP initially suspected she might have had a heart attack due to elevated levels of a protein called creatinine kinase in her blood. While tests found no problems with her heart, they revealed a nodule on her lung.

Some lung nodules have simple causes like infections and do not require radical treatment, but others are the first sign of lung cancer.

"I had never smoked in my life, and the thought that I might have lung cancer was terrifying," she said.

"Some members of my family smoked, but I had not lived with them for 12 years.

"I only went to the doctor because one of my friends noticed I had lost weight and was looking pale. I am just so thankful that this was discovered early."

While her nodule was tiny, that did not mean the next steps were straightforward. She was told that because of its size and location, it would be very difficult to take a sample for testing.

Traditionally, the only options in cases like hers have been to remove the nodule without a confirmed diagnosis or wait for it to grow big enough to sample.

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Luckily for her and her family, she had the opportunity to take part in a clinical trial at Macquarie University Hospital, where respiratory physicians Professor Alvin Ing, Associate Professor Tajalli Saghaie and Associate Professor Jonathan Williamson are assessing the Noah Medical Galaxy Robotic Bronchoscopy System.

This piece of technology was designed specifically to take biopsies from small, hard-to-reach nodules like hers — and it may have saved her life.

Diagnosing a silent killer

Lung cancer killed more than 8600 Australians in 2020. It is the world's leading cause of cancer-related deaths, though it is only the fifth-most-commonly diagnosed type of cancer.

The main reason for this high mortality rate is that by the time someone with lung cancer begins to notice symptoms, the disease is well advanced and it may already be too late for treatment.

An early diagnosis is the best chance of beating the disease, but in cases like Gomez's, getting that diagnosis can be challenging, even for the most skilled clinicians.

The new option makes the process much less distressing for those patients who might otherwise have to either wait for the nodule to grow or choose to have surgery that could prove to be unnecessary.

Interventional pulmonologist Professor Ing is chief investigator in the clinical trial.

"Traditionally, biopsies of lung nodules have been performed via a needle through the chest wall and into the lung, but this carries the risk of significant complications, with the possibility that it could cause the lung to collapse or resulting in bleeding that can be very hard to control," Ing said.

"A standard bronchoscopy is also an option, but in cases where the nodule is very small and deep in the lung, where the airways are narrowest, it can be difficult to reach and hard to accurately sample, so it tends to result in a successful diagnosis in fewer than 70% of cases.

"This new option makes the process much less distressing for those patients who might otherwise have to either wait for the nodule to grow or choose to have surgery that could prove to be unnecessary."

Mapping the way

The Galaxy system uses data from CT scans of the patient's lungs to create a highly detailed GPS-style map to the nodule.

During the procedure, a probe is inserted into the airway, and with the assistance of the robotic arm, the doctor uses an Xbox-style controller to follow the map straight to the nodule.

Sweeps from a C-arm X-ray machine confirm in real time that the probe is correctly placed, and the robotic arm holds it steady while samples are collected.

So far, 13 procedures out of a planned 30 have been completed as part of the trial, which is being run by the Macquarie University Clinical Trials Unit.

Associate Professor Saghaie has performed eight of the procedures, and said the potential benefits to patients of safer, more accurate sampling methods are tremendous.

"In Ms Gomez's case, her nodule proved to be cancerous, and receiving that prompt diagnosis with early effective treatment probably saved her life," he said.

Image: Jesse Taylor.

Professor Ing and Associate Professor Sajhaie putting the Galaxy Robotic Bronchoscopy System to work at Macquarie University Hospital.

Image: Georgia Gowing.

Young mum Cindy Gomez is clear of cancer since her precise diagnosis led to early life-saving treatment.

"She has now had the nodule removed, and while she will still need regular monitoring, all of her latest test results indicate she is cancer-free.

"If the nodule had gone undetected, she may only have had a few years."

It still early days for robotically assisted bronchoscopies, but Ing and Saghaie have achieved a diagnosis for every patient who has undergone the procedure.

And it is bringing benefits not only for people who are found to have cancer, but for those whose nodules have other causes.

Four of the people who have been part of the trial have had non-cancerous conditions that either did not require surgery, or required far less radical intervention than would otherwise have been the case.

A national screening program

Currently, one of the key ways of catching lung cancer early is purely incidental: lung nodules are spotted when people have chest scans for other reasons, as in Gomez's case.

Countries such as the UK, US, Canada, France and Germany have established routine screening programs to provide regular scans for people at high risk of lung cancer due to their current or past smoking behaviour.

The Australian Government is considering establishing its own national lung cancer screening program, similar to the programs already in place for breast, bowel and cervical cancer.

If such a program were to be established, then far more small nodules would be discovered, and more accurate sampling methods, such as robotically assisted bronchoscopies, would be in high demand.

But robotically assisted bronchoscopy is not the answer in every case, and they should not be performed without proper consideration from a multidisciplinary team.

Macquarie University Hospital's MQ Health Respiratory and Sleep Clinic established a pulmonary nodule clinic last year, with a team that includes interventional pulmonologists like Ing and Saghaie, who work with cardiothoracic surgeons, radiologists and oncologists.

"Just because you can do a bronchoscopy, that doesn't mean it's the most appropriate thing for every patient," Ing said.

"Some patients will go straight to surgery because the mass in their lung is growing quickly, with other tests suggesting lung cancer, while others will need radiotherapy because they are too frail for general anaesthetic and surgery.

"It's very important that all the patient's circumstances are taken into consideration on an individual basis, and this is where the multidisciplinary team approach really comes into its own."

Republished from Macquarie University's The Lighthouse.

Professor Alvin Ing is a Professor of Respiratory Medicine at Macquarie University Medical School and Clinical Program Head of the University's Cardiovascular and Respiratory Program.

Associate Professor Tajalli Saghaie is Deputy Director of Medical Services at MQ Health. He is a specialist in Respiratory and Sleep Medicine, including Interventional Pulmonology.

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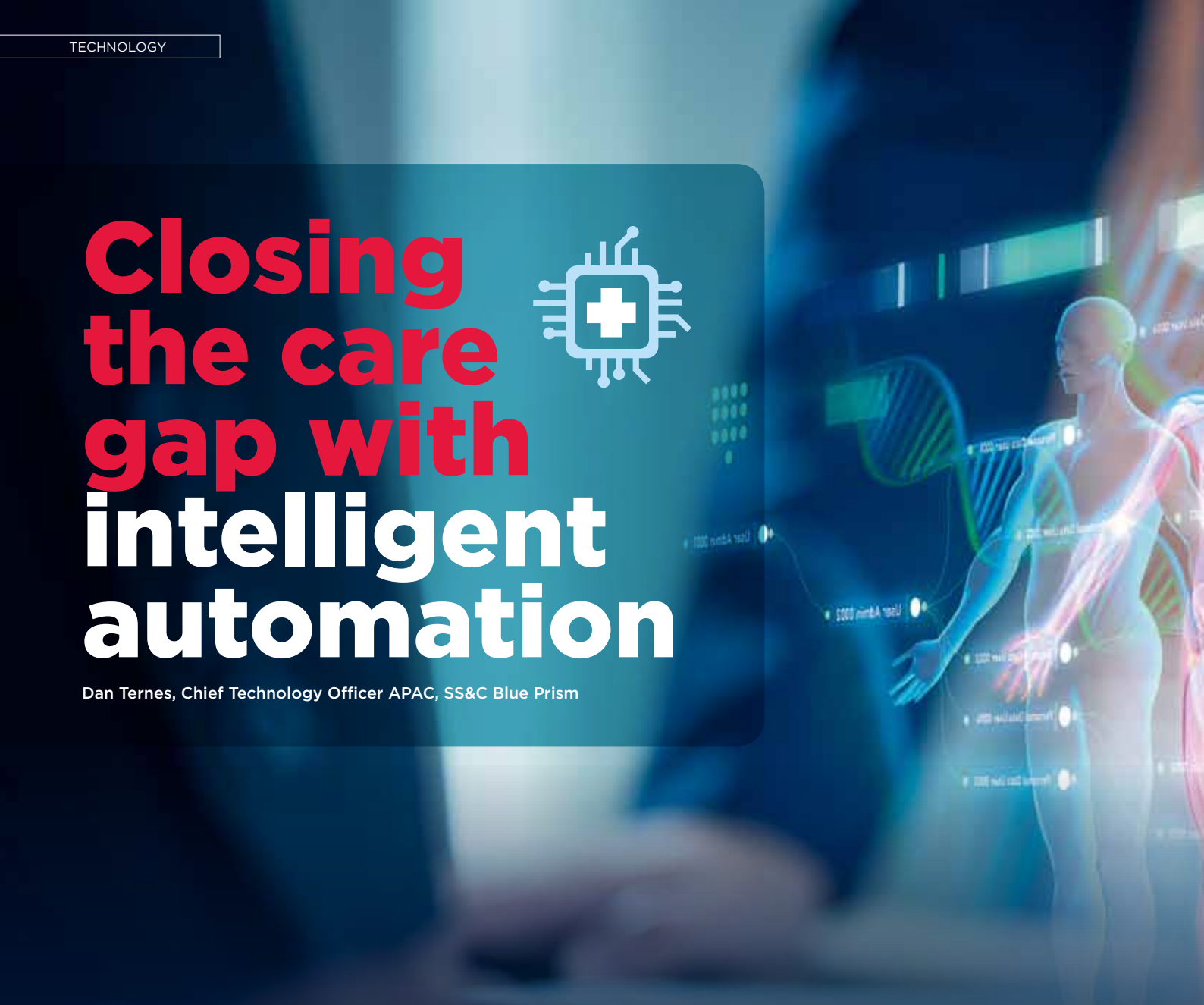
Closing the care gap with intelligent automation

Dan Ternes, Chief Technology Officer APAC, SS&C Blue Prism



Every country's healthcare system works differently, but the pandemic has exacerbated the common pressure points across front- and back-office operations, affecting the quality of patient care. Do artificial intelligence and automation hold the secret to transforming our ailing system?

The World Health Organization's (WHO) latest global pulse survey revealed that 92% of the 129 respondent countries experienced some kind of disruption to services in the second half of last year. No major health area has been able to avoid negative impact, the survey found.

Australia saw a 7% jump in patients presenting to hospitals in the past year, increasing the wait time by nearly 30%. The pandemic took a toll on health systems around the world, leading to patient care and treatment being affected, with growing waitlists and waiting times, and overburdened care workers struggling to fill the gaps in an already understaffed sector that is facing increasing pressure to also maintain financial sustainability.

How does a sector with significant backlogs of waiting patients, resource and talent shortages, and difficulty attracting and retaining new talent dig itself out?

The WHO's Regional Director for Europe, Dr Hans Henri P Kluge, said that in order to catch up on backlogged care we need to, among other things, invest in future health infrastructure. This sentiment was echoed by UK Prime Minister Rishi Sunak at the CBI conference last month where he had called for the public healthcare system, the National Health Service (NHS), to embrace automation to navigate challenges in the healthcare sector.

What is the problem with existing health infrastructure?

Legacy systems and infrastructures were seen as the greatest barriers to achieving positive patient experiences in the SS&C Blue Prism Global Healthcare Survey Report. Such systems create information siloes that obstruct healthcare workers' ability to access information when they need it and to gain value-creating insights from free-moving data.

This leads to more errors due to manual data transfer and inefficient operations in an age when healthcare organisations are facing demands to do more for their patients with the same or even fewer resources.

The pandemic spurred change across the sector

The COVID-19 pandemic forced most healthcare organisations (93%) to accelerate digitalisation plans. This left an indelible mark on the sector, with automation now a common feature of healthcare organisations' strategy plans.

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Most healthcare organisations are either considering or already have plans to roll out automation to overcome challenges from legacy systems and infrastructures, according to 70% of those at the director and manager levels.

The promise of intelligent automation

An intelligent automation (IA) platform, employed effectively, can help cut backlogs, get patients the care they deserve and enable staff from every department to be more productive by alleviating some of their workloads — mitigating burnout and creating space for more and better patient treatment and service.

Cases can be worked through faster by prioritising patient requests and processing queries that do not require manual input. Digital workers can attend to repetitive and error-prone tasks, allowing more cases to be processed as time is given back to health professionals.

Operations across organisations are enhanced as siloed operating systems that create double-work, inefficiencies and broken patient journeys are replaced with integrated systems and processes designed to use the right resource for the right outcome.

Process intelligence, as part of an IA platform, highlights organisations' pain points so they can be improved to create further efficiencies. It also identifies processes ripe for automation, delivering immediate value in the form of greater patient care, supported healthcare workers, increased productivity and reduced operational costs. Errors are caught sooner, patient journeys are seamless and streamlined, bottlenecks are identified and addressed, revenue is boosted, turnaround times are faster and patient no-shows and unnecessary appointments are reduced.

Better patient care and experience with intelligent automation

With the help of IA, we have seen health organisations give their patients the care they deserve and protect their futures by creating built-in agility and better patient experiences.

IA enables hospitals and clinics to bring in digital workers — AI-fuelled software coupled with machine learning (ML) designed to model human roles — to execute rules-based tasks such as appointment bookings and referrals, freeing up healthcare practitioners' time for better patient care and experience.

Virtual Blue, a New Zealand-based IT services and consulting firm, is leveraging intelligent automation to help healthcare organisations alleviate overworked healthcare staff and enhance patient experience. Sharyn Catt, Managing Director and Founder of Virtual Blue, said that they have helped to automate the e-referrals from different healthcare professionals across public hospitals and deployed digital workers in eligibility checks to see if patients qualify for free health care. These automations are helping free up time for the administrative staff to take on more value-based tasks.

In another example, Mercy Radiology Group, a New Zealand-based provider of diagnostic and interventional radiology services, has implemented intelligent automation coupled with machine learning algorithms to assist clinicians, particularly in the identification of lung nodules and fractures in scans.

Alexis Stewart, Director of Strategic Programmes at Mercy Radiology, said, "The ML algorithms study images and reports and flag any issues that a human worker has not yet discovered. The use of intelligent automation with ML enables clinicians to effectively triage scans and reporting."

These examples illustrate the potential of IA to get healthcare systems back on track. Patient care can be put back at the heart of health care by creating self-service opportunities and helping staff cope with mounting workloads amid insufficient resources. Hospitals and health systems that adopt a digital-first strategy that encompasses an IA platform, artificial intelligence, interoperable analytics and other related advanced technologies will be driving towards the future of medicine. Underserved patients do not have time to wait — act soon, act now.

New logo, new website, same commitment

This month heralds an exciting new milestone in the more than quarter-century history of CFT International. Over the past 25+ years we have built up an enviable reputation as one of the leading providers of food safety training and RSA certification.

In keeping with CFT's ongoing dedication to providing our customers with the high quality that they've come to expect, we're proud to announce that CFT's online home has moved to the new address of www.cft.edu.au.

Only accredited Registered Training Organisations can apply to use an edu.au web address, so our new URL underscores our commitment to delivering top notch services, utilising the best trainers and assessors available.

To celebrate the change we've also taken the opportunity to unveil a new logo for the CFT brand, and a new website. The new logo maintains continuity with the CFT branding that long time customers and students have come to know and trust while introducing a bold new look designed to resonate in the contemporary marketplace.

In the midst of all this innovation, one thing that hasn't changed is CFT itself. We are still the same trusted service provider under the same Australian ownership that we have always been, with the same staff and same commitment to quality you've come to expect from us.

I invite you to visit our new website at www. cft.edu.au, which has been redesigned to be easier to navigate and find all the information you need on our services, and features a more contemporary presentation style.

Our former address of www.cft.com.au will automatically redirect to the new site for the time being, until everyone is familiar with where to find us in the future.

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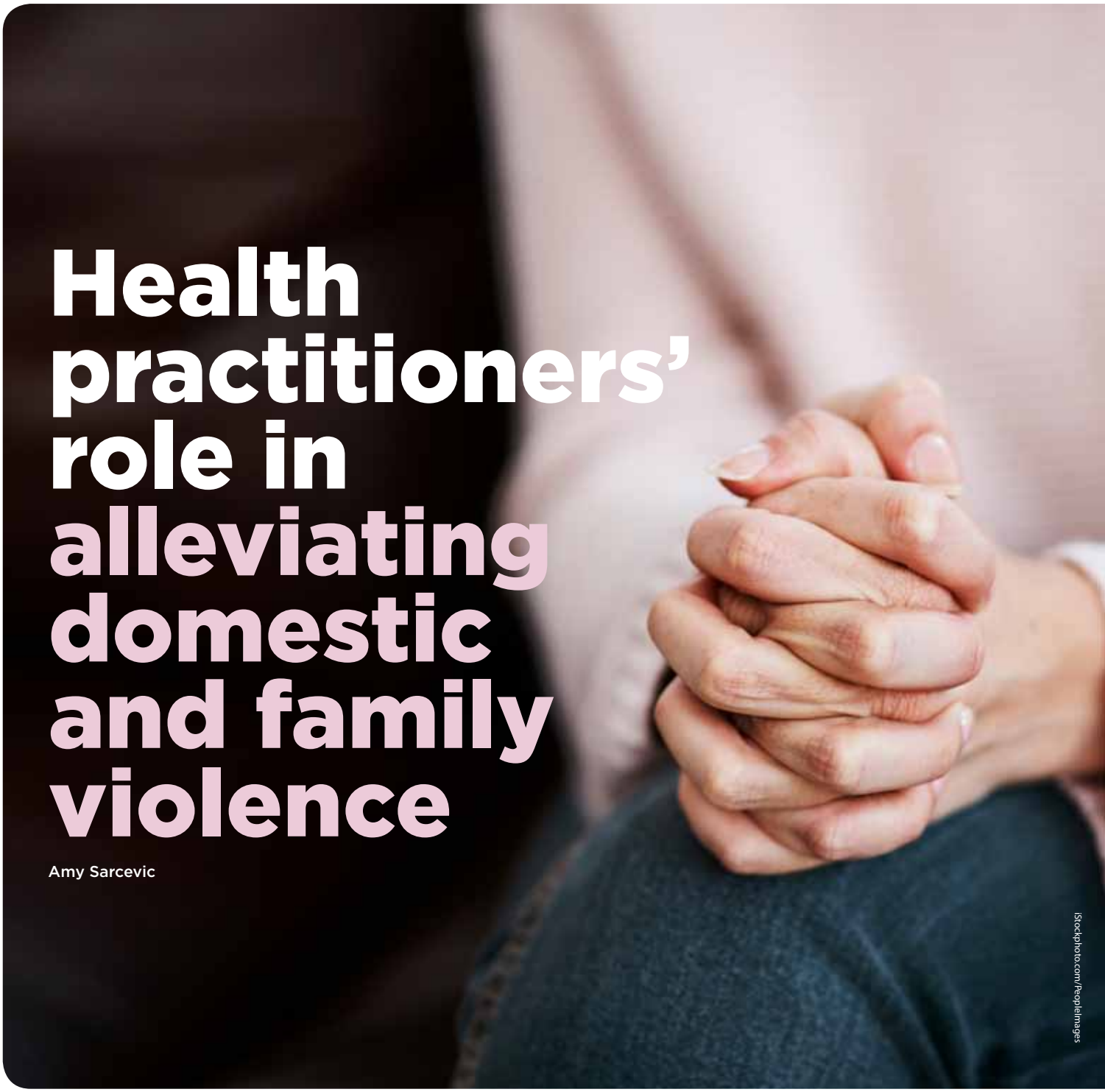
Health practitioners' role in alleviating domestic and family violence

Amy Sarcevic



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Health practitioners hear about — and handle the repercussions of — family and domestic violence more than any other professional, yet many feel they are only modestly equipped to support survivors.

Broadly, healthcare workers know to Listen, Inquire, Validate, Enhance safety, and Support, as per the World Health Organization LIVES model. They also know to give patients Choice and control, Advocate for them, Recognise and understand, and show Emotional empathy (CARE).

However, Professor Kelsey Hegarty, Director at the Centre for Family Violence Prevention at the Royal Women's Hospital, who helped create the LIVES guidelines, believes current interventions are a "drop in the ocean" and that health workers need more support in tackling this pervasive issue.

Health impacts

Alongside the emotional cost to survivors, the disease burden of family and domestic violence is significant.

For child-bearing women, it is the leading cause of death and disability; and generally, it is a major contributor of PTSD, depression, anxiety and acquired brain injury.

Women are most at risk of being targeted — and of falling prey to health complications.

Thirty-six per cent of women aged over 18 have experienced physical or sexual violence since the age of 15; and of those, 22% have been physically assaulted during pregnancy. Women survivors of sexual violence are also less able to protect themselves against sexually transmitted infections.

Alongside immediate health risks, the long-term sequelae of abuse can include chronic conditions like stroke and heart disease, Hegarty said.

"It's certainly not only black eyes that occur. Imagine what walking on eggshells every day for years and being in an enduring state of fight or flight could do to your health," she said.

“Regardless of how well trauma-informed individual clinicians are, change won’t happen without the right systemic conditions.”

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The role of health workers

Given the health repercussions, Hegarty says the role of clinicians in addressing family and domestic violence is clear. However, she believes there may be misconceptions about what exactly that role entails. Too often, the emphasis is on getting a disclosure and not on the quality of the patient–practitioner relationship, she said.

“When we talk to a patient who we suspect might be experiencing family or domestic violence, we shouldn’t do so solely with the purpose of getting a disclosure. Really, it’s about signalling to the patient that family violence is health work; and that the health setting is a good place for them to seek support — even if they don’t disclose on that occasion.”

The right verbal and non-verbal communication is critical to this approach, she added.

“When you enter a conversation about family and domestic violence, you need to be gentle and non-judgmental. The idea is to project that you are someone patients can trust and who genuinely cares about them. This is achieved though body language, tone of voice and choice of words.”

While health workers are often skilled and experienced in handling sensitive topics with patients, conversations around domestic and family violence may require scripting.

“Phrases like, ‘tell me about your relationship — I’m interested because relationships affect your health’, or ‘often in relationships things can happen that make you scared’ are good because they are not too confrontational,” Hegarty said.

Beyond these initial discussions with patients, staff also need to recognise where their own clinical behaviours might be triggering for people with a history of trauma.

Medical gaslighting — where patients’ experiences of physical and mental health problems are minimised — is a prevalent issue, and may be particularly distressing for people with a history of psychological abuse. In intimate relationships, abusers often use gaslighting to downplay their own transgressions.

Systemic conditions

Regardless of how well trauma-informed individual clinicians are, change won’t happen without the right systemic conditions, Hegarty argued.

“If there is a large bullying culture in the workplace, then staff will find this work hard. Or, if staff have their own experiences of domestic and family violence — which many do — they might struggle if not supported,” she said.

With this in mind, healthcare institutions should have clear policies in place for handling domestic and family violence — among both employees and patients.

“A successful program is run at the organisational, staff and patient level. Clinicians who find this work distressing will need to be supported by their employer. There should also be confidential spaces, a positive working culture, and very clear policies and protocols.”

Beyond these measures, a focus on quality assurance is also important. To this end, Hegarty and team have developed an audit to help identify gaps at the system and institution level.

“It’s important to check in and see how your institution is doing in this area. You might be training your staff, but did everyone attend? And of those who did, who actually listened?

“The hallmark of a successful program is where all staff exemplify trauma- and violence-informed care in their daily work,” she concluded.

Dr Start-Up

A new wave of 'doctorpreneurs' is emerging — and they need a whole range of business skills alongside their clinical expertise. They rely on trusted partners, especially when it comes to the hospital equipment their facility will need in order to operate effectively and safely.

Not your typical start-up

Think of a start-up and chances are you'll have an image in your head of a young entrepreneur in a tech, social enterprise or hospitality business. Your thoughts probably don't turn automatically to an experienced and highly professional doctor, surgeon or anaesthetist, setting up a medical facility.

The rise of the 'doctorpreneur'

But medical entrepreneurs are found in increasing numbers. So much so that the universities of Melbourne and Western Australia are now piloting a clinical entrepreneur program, based on a similar, highly successful program run by the UK's National Health Service (NHS). Amongst this growing number of 'doctorpreneurs' are clinicians who have studied for years, worked in private and/or public hospitals, and found themselves increasingly frustrated at the lack of operating facilities in which to treat their patients. So they are taking matters into their own hands and starting their own private day hospitals.

These highly skilled practitioners are used to navigating arteries, or monitoring vital signs, but when it comes to the operation of starting a business, they find they need a whole new set of skills, very different to opening up patients.

Top Gun

One 'doctorpreneur' described medical entrepreneurs as being like a fighter pilot who has to build his own airport. 'Surgeons and anaesthetists are a bit like Maverick — highly qualified people, used to operating in high pressure environments. But in a public or private hospital, just like in the air force, everything is provided for them. Becoming an entrepreneur is like Maverick having to source his own planes, and even build the runway. We have to learn how to do everything from scratch.'

New skills

That means that business and financial expertise is a must — to raise capital and build a sound business plan for a return on their investors' money.

Medical entrepreneurs need planning skills to find the right site — easy to get to, close to other primary services, including a public hospital, but without too much competition — negotiate a purchase or lease and engage architects and builders.

As business owners, they need to manage the accreditations and certifications they need to practice, and hire the administrative and support staff who'll support them.

As doctors, they understand the importance of fitting out the facility with safe, reliable and high quality equipment — from sterilisation solutions to operating tables, to patient monitoring. That might include setting up ancillary service areas, such as pathology or medical imaging, and leasing out part of the facility.

The importance of partners

With such a wide range of skills needed, today's breed of clinical entrepreneurs rely heavily on trusted partners. They need to find suppliers that can provide expert help, reduce the stress and be as invested in the success of the new facility as they are.

The seven essential questions when choosing an equipment partner

When it comes to equipment, there are seven things that 'doctorpreneurs' need in a trusted partner:

1. A wide range of equipment — when you're fitting out operating theatres and recovery wards from scratch, you don't have the time to be working with multiple suppliers, each of whom can only provide a small piece of the solution. So medical entrepreneurs need to look for a supplier who can fit out the whole facility. A turnkey solution, from a supplier who offers a full range from lights, to tables, to pendants, to anaesthetic machines under a single contract, takes away much of the headache of equipping your new facility.
2. Advice and insights — the world of medical equipment is constantly changing and doctors and anaesthetists may not always be up to speed with the latest developments, especially if they've come from an environment that has older items. It's important to look for a partner who can provide you with advice and guidance, not just a catalogue.
3. Finance — you may want to look for a supplier who can finance your equipment, to reduce the burden on your capital. Ask if they can structure a plan so that you pay for the equipment as it is generating revenue for you.
4. Can they supply high quality, best of breed equipment? Will they provide equipment that meets stringent certification requirements? Having built a state-of-the-art day hospital, you need to ensure you have the equipment to match.
5. Timeframes — can the supplier provide your equipment at the right time? On the one hand, you need it in time for the opening, and don't want to have delays. But on the other hand, you don't want to be paying for equipment too early, before it is helping you to generate revenue. So it's important to work with a partner who is flexible enough to fit around your plans.
6. Will the supplier help you to install the equipment, and train your staff on how to get the best from it? It's essential you don't end up with a partner who supplies and walks away.
7. Will your partner be at your side throughout the lifetime of the equipment? An operating table that doesn't work means that you can't work, so you can't afford 'downtime'. A regular preventative maintenance program minimises the chance of essential equipment not being available. After sales service is key to the successful use of your equipment, so check that your chosen partner has well-trained, medically knowledgeable people in your state (and in others if you plan on expanding), who will pick up the phone when you call, and continue to support you and your hospital.

There is so much that goes into opening a new day care hospital. 'Doctorpreneurs' need to find trusted partners along every step of the way. Having the right equipment, and ensuring it is available, working, when you need it, is a significant part of the success of your new venture. Using our seven questions checklist will ensure you to find the right partner for your vital hospital equipment.

A singular approach to wound care

A collaborative team involving Whiteley Corporation, ResTech — a joint venture between Ampcontrol and the University of Newcastle — and Western Sydney University is set to create a singular approach to wound care.

Electrical engineering company Ampcontrol is teaming up with Whiteley Corporation for chronic wounds research after receiving a grant through the federal government's Cooperative Research Centres Projects (CRC-P) program, which totals $5.6 million over three years.

Effective management of chronic wounds requires a combination of treatments that include wound debridement, an anti-biofilm treatment, wound mapping and a deeper tissue perception of bacterial engagement beyond the wound surface, which cannot typically be seen.

"This work will be of major medical impact worldwide. Chronic wounds start with a minor skin injury that doesn't heal but progresses to a problem costing $3.5 billion in Australia alone," said Associate Professor Greg Whiteley, Executive Chairman of Whiteley Corporation.

"We are thrilled to be a partner in this industry-led medical research collaboration with the Whiteley Corporation, University of Newcastle and Western Sydney University. The funding enables industry innovators, researchers, students and end users to work together to deliver real outcomes for our community and economy," said Ampcontrol Managing Director & CEO Rod Henderson.

Minister for Industry and Science Ed Husic MP recently announced $44 million in grants for Australian companies to support 19 collaborative research projects, with AMP receiving a grant in round 13 of the program.

The CRC-P grants are awarded through a competitive, merit-based selection process, assessed by an independent committee of industry experts. Grants are for a period of up to three years and they support industry-led research projects, offering matched funding of between $100,000 and $3 million.

Professor Slade Jensen, from Western Sydney University's School of Medicine and the Ingham Institute for Applied Medical Research (IIAMR), said, "Once established, mature biofilms become recalcitrant to standard therapeutics. However, bacteria within biofilms are not visible to the naked eye. This project provides a rationale for the use of novel strategies to affect microbial biofilms and wound healing directly and indirectly."

Professor Zee Upton, Deputy Vice-Chancellor Research and Innovation for the University of Newcastle, said, "Our researchers are renowned for finding new ways to help people live better, healthier lives; we also have a strong track record of working with industry partners to turn innovative ideas into real-world solutions."

The strength of industry partnership collaboration was evident at the height of the COVID pandemic when, working with clinicians at John Hunter Hospital, ResTech and Ampcontrol designed and built a fully functional emergency ventilator prototype for NSW Health in less than 18 days, said Ampcontrol in a statement. Following clinical trials, the NSW Government selected the prototype to move into pre-production, which Ampcontrol rapidly manufactured in the Hunter region.

"We have shown what can be achieved here in Australia when strong partnerships exist between government, university and industry. We have proven strength in local manufacturing capability and a highly skilled workforce ready for the next generation of product innovation," Henderson said.

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“Chronic wounds start with a minor skin injury that doesn’t heal but progresses to a problem costing $3.5 billion in Australia alone.”

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A bioengineered alternative to wound healing

In Australia, around 60,000 people undergo skin flap harvesting surgery to treat difficult-to-heal wounds.

The most common way to treat a serious wound such as those caused by severe trauma, cancer resection or diabetes is to harvest thick skin flaps of a patient's skin from other sites. This surgery is said to be complex and costly, involving frequent complications. It also creates a second wound on the patient and often leads to long hospital stays, and difficult rehabilitation.

St Vincent's Institute of Medical Research Associate Professor Geraldine Mitchell is developing an alternative to skin flaps using bioengineered skin and incorporated blood vessels.

The research aims to offer a bioengineered alternative using a patient's own cells which are grown to form a skin flap with blood vessels in the lab, rather than harvesting a flap directly from a patient.

"Skin flap harvest and transfer does create the right conditions for wound healing; however, the process itself has an entire set of its own problems and complications, especially as it creates what is essentially a new wound where there previously was none," Mitchell said.

"The current techniques require complex, costly surgery, and this research potentially provides a far less invasive alternative."

The project has received $710,793 from the Medical Research Future Fund.

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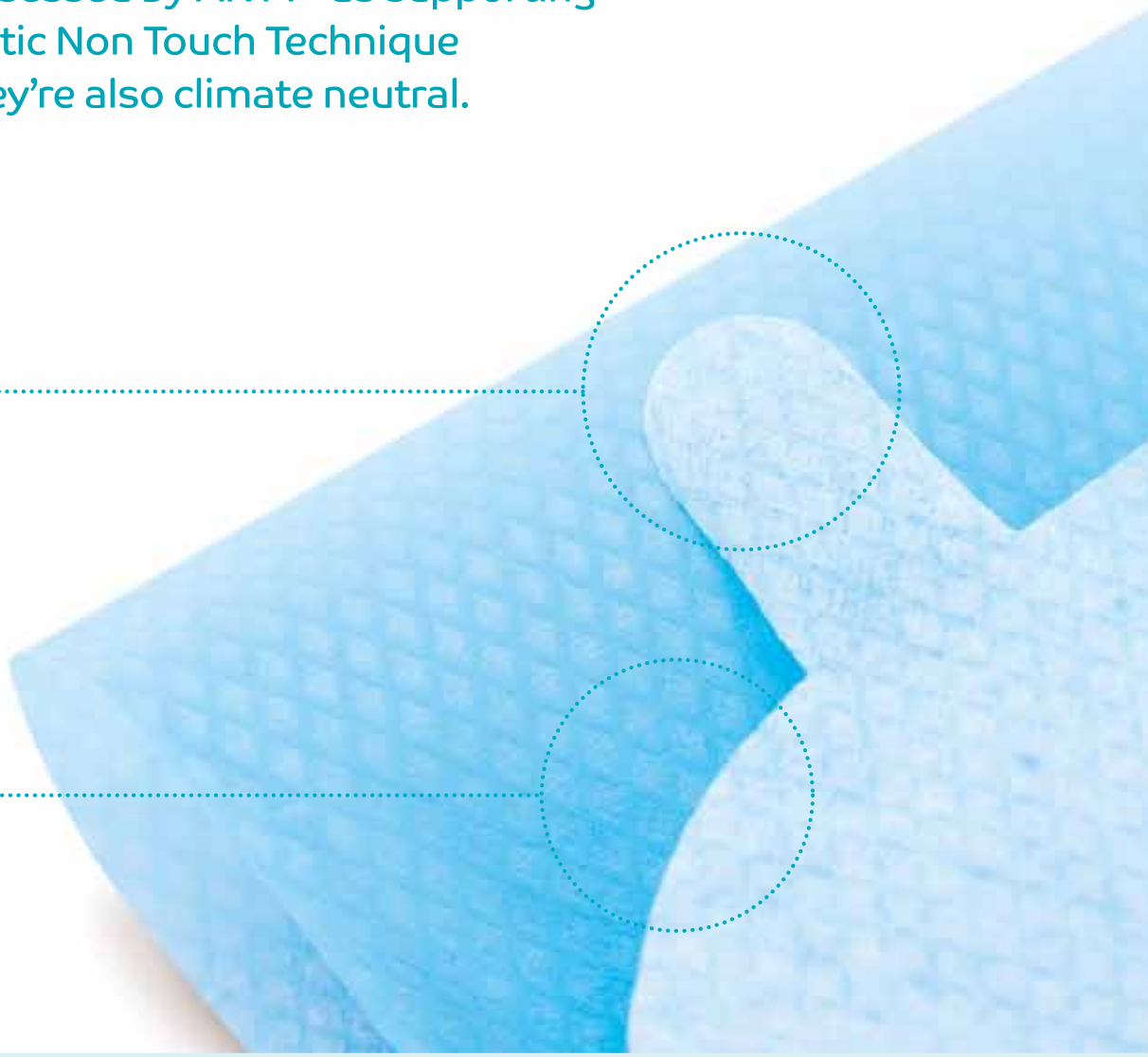
Climate Neutral Product 2022/23 by South Pole

Not only have our Smart Tab® Dressing Packs been assessed by ANTT® as supporting effective Aseptic Non Touch Technique (ANTT®) — they're also climate neutral.



SmartTab® provides a simple and effective way to open and position the pack.

Two-colour system clearly denotes aseptic surfaces.

A smarter way to support aseptic practice

SmartTab® Dressing Packs are designed to support an Aseptic Non Touch Technique (ANTT®), ensuring Key-Parts and Key-Sites are protected in any procedure.

- ☑ **pack folding supports a safe and efficient opening**
- ☑ **two-colour system clearly denotes sterile surfaces**
- ☑ **tabs provide a simple and effective way to open and position the aseptic field**

Neutralising our climate impact

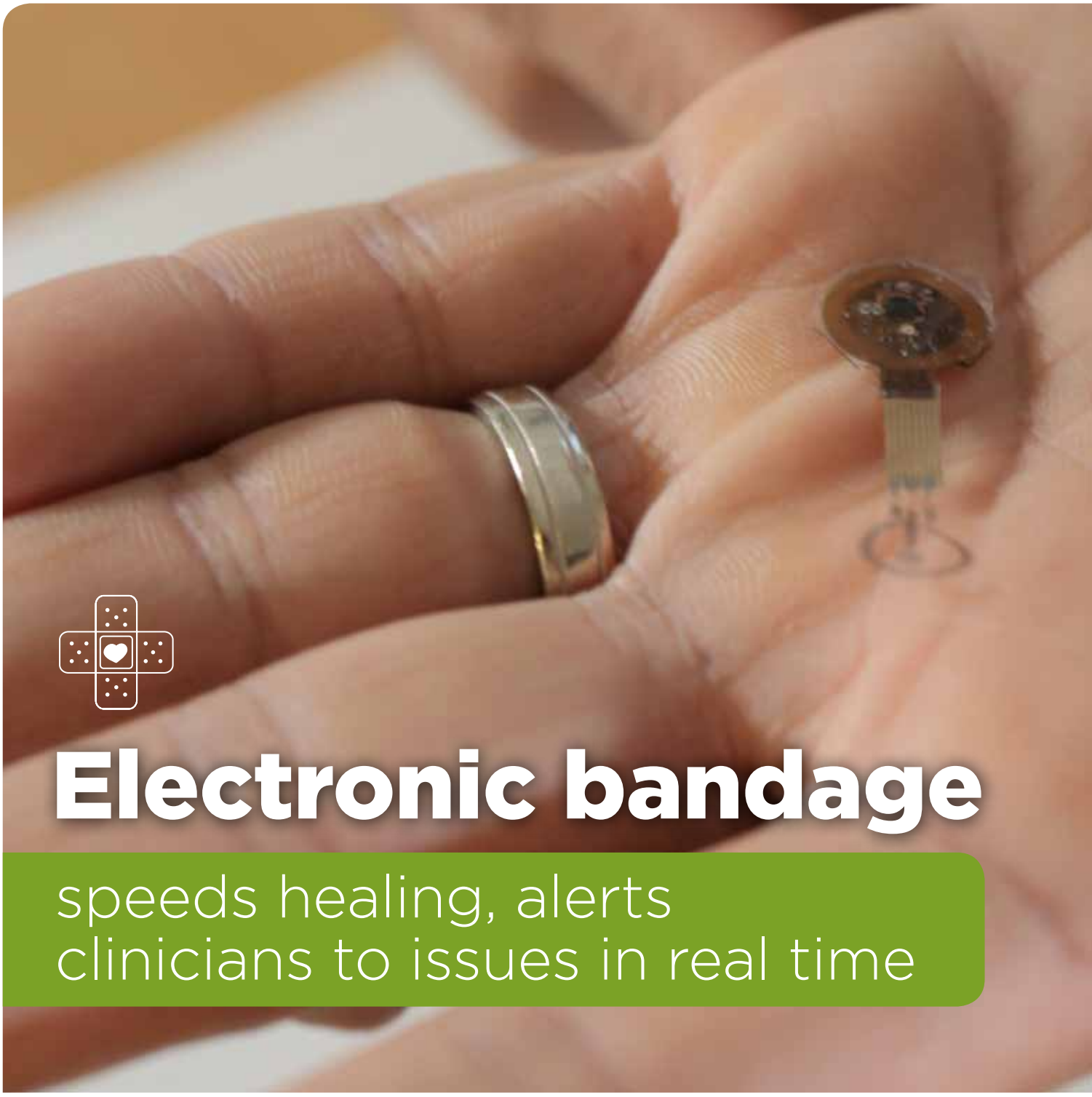
By measuring the lifecycle greenhouse gas emissions associated with our packs we've offset the corresponding amount of greenhouse gas emissions — making all of our packs climate neutral.

This offset is independently verified by South Pole.

Join us on the journey towards better product stewardship by switching to our climate neutral Dressing Packs.

MULTIGATE®

Start the journey here
multigate.com.au/journey-smarttab



Electronic bandage

speeds healing, alerts clinicians to issues in real time

A new stretchable bandage, developed by researchers at Northwestern University, accelerates healing by 30% by delivering electrotherapy directly to the wound site.

The wireless, battery-free bandage also actively monitors the healing process and then harmlessly dissolves — electrodes and all — into the body after it is no longer needed.

In an animal study, the new device healed diabetic ulcers 30% faster than in mice without the bandage. It could be a powerful tool for patients with diabetes, whose ulcers can lead to various complications, including amputated limbs or even death.

"When a person develops a wound, the goal is always to close that wound as quickly as possible," said Northwestern's Guillermo A Ameer, who co-led the study.

"Otherwise, an open wound is susceptible to infection. And, for people with diabetes, infections are even harder to treat and more dangerous. For these patients, there is a major unmet need for cost-effective solutions that really work for them. Our new bandage is cost-effective, easy to apply, adaptable, comfortable and efficient at closing wounds to prevent infections and further complications."

"Although it's an electronic device, the active components that interface with the wound bed are entirely resorbable," said Northwestern's John A Rogers, who co-led the study.

Image: Northwestern University.

“When the wound is healed, the flower-shaped electrode simply dissolves into the body, bypassing the need to retrieve it.”

“As such, the materials disappear naturally after the healing process is complete, thereby avoiding any damage to the tissue that could otherwise be caused by physical extraction.”

Electrical stimulation

The researchers were curious to see if electrical stimulation therapy could help close these stubborn wounds. According to Ameer, injuries can disrupt the body’s normal electrical signals. Electrical stimulation can restore the body’s normal signals, attracting new cells to migrate to the wound bed.

“Our body relies on electrical signals to function,” Ameer said. “We tried to restore or promote a more normal electrical environment across the wound. We observed that cells rapidly migrated into the wound and regenerated skin tissue in the area. The new skin tissue included new blood vessels, and inflammation was subdued.”

Historically, clinicians have used electrotherapy for healing. But most of that equipment includes wired, bulky apparatuses that can only be used under supervision in a hospital setting. To design a more comfortable product that could be worn around the clock at home, Ameer partnered with Rogers, a bioelectronics pioneer who first introduced the concept of bioresorbable electronic medicine in 2018.

Remote control

The two researchers and their teams ultimately developed a small, flexible bandage that softly wraps around the injury site. One side of the smart regenerative system contains two electrodes: a tiny flower-shaped electrode that sits right on top of the wound bed and a ring-shaped electrode that sits on healthy tissue to surround the entire wound. The other side of the device contains an energy-harvesting coil to power the system and a near-field communication (NFC) system to wirelessly transport data in real time.

The team also included sensors that can assess how well the wound is healing. By measuring the resistance of the electrical current across the wound, physicians can monitor progress. A gradual decrease of current measurement relates directly to the healing process. So, if the current remains high, then physicians know something is wrong.

By building in these capabilities, the device can be operated remotely without wires. From afar, a physician can decide when to apply the electrical stimulation and can monitor the wound’s healing progress.

“As a wound tries to heal, it produces a moist environment,” Ameer said. “Then, as it heals, it should dry up. Moisture alters the current, so we are able to detect that by tracking electrical resistance in the wound. Then, we can collect that information and transmit it wirelessly. With wound care management, we ideally want the wound to close within a month. If it takes longer, that delay can raise concerns.”

In a study of animal models, the researchers applied electrical stimulation for just 30 minutes a day. Even this short amount of time accelerated the closure by 30%.

Disappearing act

When the wound is healed, the flower-shaped electrode simply dissolves into the body, bypassing the need to retrieve it. The team made the electrodes from a metal called molybdenum, which is widely used in electronic and semiconductor applications. They discovered that when molybdenum is thin enough, it can biodegrade. Furthermore, it does not interfere with the healing process.

“We are the first to show that molybdenum can be used as a biodegradable electrode for wound healing,” Ameer said. “After about six months, most of it was gone. And we found there’s very little accumulation in the organs. Nothing out of the ordinary. But the amount of metal we use to make these electrodes is so minimal, we don’t expect it to cause any major issues.”

Next, the team plans to test their bandage for diabetic ulcers in a larger animal model. Then, they aim to test it on humans. Because the bandage leverages the body’s own healing power without releasing drugs or biologics, it faces fewer regulatory hurdles. This means patients potentially could see it on the market much sooner.

Wound management: Skin Tear Pack Study

The original concept for the skin tear pack came through the collaboration of the Sentry Medical Team with Key Opinion Leaders in aged care and wound management:

- Chloe Jansz (Nurse Practitioner from Healthcare United)
- Annette Ross (Executive Director Quality of Royal Freemasons)
- Prof Sonja Cleary from RMIT.

There are various products in place at present in the aged care sector to manage skin tears. Currently, these options require the skilled nurse to use an aseptic technique and a combination of various products, as well as a dressing pack to address the complexity of the aging skin.

This research project evaluated the introduction of a Skin Tear Wound Management Pack (STWMP) which included all key elements for skin tear wound management within its content, previously found separate in practice. Each STWMP had two sides to its packaging, one side to advise the "user" registered/enrolled nurse (not specialised in wound care) or non-regulated worker the steps on how to use the content. The other side is a pictorial diagram of the International Skin Tear Advisory Panel (ISTAP) classification, so the "user" can look at the skin tear in front of them and determine if it is an appropriate skin tear to dress as a first

Features and Benefits

FEATURE	BENEFIT
Ideal for First response	Designed for any health care worker to apply. Ensures the correct regime can be easily followed, to decrease the risk of progression of a skin tear to a chronic or complex wound.
Suitable for all levels of knowledge	The pack is designed to guide even the most novice health care worker to provide the correct regime for classifying and treating skin tears.
Conveniently packaged	All of the essential items are available in a conveniently preassembled pack, saving time, money and ensuring compliance to the ISTAP's best practice recommendations.
Efficient documentation	The packaging incorporates an easy to follow and comprehensive documentation check list, to ensure all of the necessary details are captured for optimal patient care.
ISTAP compliant	The pack is designed around ISTAP's 2018 Best Practice Recommendations for The Prevention And Management Of Skin Tears In Aged Skin, which is an internationally recognised document.
Backed with scientific research	The research results showed a reduction in skin tear healing time, therefore an increased rate of healing, reduction in staff time, all creating a reduction in the burden of disease that skin tears have in the aged care sector.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response or alternatively escalate concern to a registered nurse or wound care specialist.

The correct dressing choice is required that addresses coagulation status, infection risk, wound product wastage, pain and quality of life management for the resident. Sussman and Ryan's (2019, p.11) statement to the Royal Commission into Aged Care Quality and Safety Royal Commission on behalf Wounds Australia (2019) identified *"The major risks of the use of inappropriate dressings are delayed healing, wound deterioration, potential infection, pain and stress to the consumer. The impact on cost of treatment of using inappropriate products is significant."*

The primary aim of the eight-week project across four sites was to evaluate implementation of a STWMP in which any healthcare worker could apply the correct regime, decreasing the risk of progression of a skin tear to a chronic or complex wound.

The results showed a reduction in skin tear healing time, reduction in staff time and a more accurate classification of the correct type of wound. In addition it highlighted some design features and the impact of pre education and socialisation of the STWMP in practice.

The overall outcome of the study demonstrated that STWMP was used in preference to regular practice, saving nurses time, facility costs and empowering the unregulated healthcare workers to maintain residents' safety and prevent infection. The STWMP promotes best and early practice for all residents' skin in a multidisciplinary team that had a resident-centred approach.

Reference: Skin Tears in an Aging Population: Workforce Empowerment — evaluation of a first responder skin tear wound management pack. Authors: Jansz, C., Ross, A. & Cleary, S. January 2022

Areas of use

AREA	
Aged care	Specifically designed and researched within aged care, where the majority of patients who are high risk, reside. Suitable for use by any heath care worker, ensuring aged care residents can get the treatment they require without having to wait for a more senior clinician.
Primary Care/ Community care	The preassembled pack can be used in primary care facilities and the community. The convenience of the pack allows for swift and efficient treatment, without the need for finding multiple separate items. The documentation allows for comprehensive communication between health care facilities and allied health professionals regarding the injury.
Respite Facilities	A convenient preassembled pack, which can be used by any health care worker or personal care assistant. The pack will provide all of the necessary instructions to classify the wound, and provide treatment without having to wait for a more senior/ qualified health care professional to provide treatment.
Ambulance/ Patient transport	Easy to use, preassembled pack, which is space efficient and can be conveniently stored and accessed, without having to look for multiple items to treat an injury.
General medical wards	General medical wards typically contain the largest proportion of aged care patients in the hospital. The pack ensures the ISTAP guidelines for classification and management are met in a convenient and efficient manner.

FAQs

QUESTION	RESPONSE
Who was involved in the research study involving the development of the skin tear pack?	Chloe Jansz, the director of HealthCare United community nursing and Nurse Practitioner designed the pack. Royal Freemasons participated in the research trial and studies (Supported by Annette Ross Executive Director Quality) and Prof Sonja Cleary from RMIT contributed and supported the studies research and university backing. Sentry Medical provided complimentary packs for the research component of the study, but was not actively involved in the research, making this an independent body of research, without a financial conflict of interest.
What is next for the skin tear pack?	The quantitative aspect of the study is complete, but a qualitative aspect of the study is due to commence, which will take into account health care works preferences and perceptions of the pack, which will help us to further refine and understand skin tear classification, management and healing times.
Where is the skin tear pack research published?	The study is published in the European Wound Management Association's (EWMA) *Journal of Wound Management, July 2022 edition*, which is a special edition focused on skin tear research, in collaboration with ISTAP.

1. LeBlanc K, Campbell K, Beeckman D, Dunk A, Harley C, Hevia H, et al. Best practice recommendations for the prevention and management of skin tears in aged skin. United Kingdom: Wounds International; 2018.
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3. Sussman G, Ryan H. EXHIBIT 6-30 - WIT.0257.0001.0001 - Witness statement of Professor Geoff Sussman and Ms Hayley Ryan. In: Royal Commission into Aged Care Quality and Safety, editor. Canberra: Commonwealth of Australia 2021; 2019. Retrieved from: https://agedcare.royalcommission.gov.au/media/11741
4. European Wound Management Association's (EWMA) *Journal of Wound Management,* July 2022 edition.

Smart sutures could reduce infection, simplify post-op care

Image: RMIT

A sample of the iodine-infused filament in the lab.

Surgical site infection (SSI) is one of the most common complications associated with surgery, occurring in around 3% of procedures in Australia, according to the Australian Commission on Safety and Quality in Health Care.

For some procedures, such as vaginal mesh implants to treat prolapse, infection rates can be much higher, leading to a ban on that procedure in 2018 in Australia, say researchers from RMIT who are developing a new antimicrobial suture that could provide an alternative to mesh implants and internal stitches.

Study lead author and Vice Chancellor's Senior Research Fellow Dr Shadi Houshyar said, "Our smart surgical sutures can play an important role in preventing infection and monitoring patient recovery and the proof-of-concept material we've developed has several important properties that make it an exciting candidate for this."

Targeting drug-resistant bacteria

The suture, being developed in partnership with clinicians, glows in medical imaging. Its properties come from the combination of iodine and tiny nanoparticles called carbon dots that are inherently fluorescent, throughout the material. Attaching iodine to these carbon dots provides them with their strong antimicrobial properties and greater X-ray visibility.

Carbon nano dots can be tailored to create biodegradable stitches or a permanent suture, or even to be adhesive on one side only, where required, Houshyar said.

The RMIT-led project, involving nano-engineering, biomedical and textile specialists working in partnership with a practising surgeon, used the textile manufacturing facilities at RMIT's Centre for Materials Innovation and Future Fashion to produce the proof-of-concept material.

In lab tests, the surgical filament was said to be easily visible in CT scans when threaded through samples of chicken meat, even after three weeks. It also showed strong antimicrobial properties, killing 99% of highly drug-resistant bacteria after six hours at body temperature.

"This project opens up a lot of practical solutions for surgeons, which has been our aim from the start and the reason we have involved clinicians in the study."

Image: RMIT

Professor Elisa Hill-Yardin, Dr Shadi Houshyar and Professor Justin Yeung inspect a prototype of the filament.

Clinical potential

Consultant colorectal surgeon and Professor of Surgery at the University of Melbourne Justin Yeung, who was involved in the study, said the suture addresses a real challenge faced by surgeons in trying to identify the precise anatomical location of internal meshes on CT scans.

"This mesh will enable us to help with improved identification of the causes of symptoms, reduce the incidence of mesh infections and will help with precise preoperative planning, if there is a need to surgically remove this mesh," he said.

"It has the potential to improve surgery outcomes and improve quality of life for a huge proportion of women, if used as vaginal mesh for example, by reducing the need for infected mesh removal."

"It may also significantly reduce surgery duration and increase surgical accuracy in general through the ability to visualise mesh location accurately on preoperative imaging."

Pre-clinical trials

Study co-author from RMIT's School of Health and Biomedical Sciences Professor Elisa Hill-Yardin said the next steps were pre-clinical trials.

"While this research is early stage, we believe we're onto something very promising that could help a lot of people and are really keen to speak with industry partners interested in working with us to take it further," she said.

"We see potential especially in vaginal mesh implants and similar procedures."

The project has received seed funding from RMIT and the researchers aim to produce larger suture samples to use in pre-clinical trials.

Featured Products

Wound care

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Wound care solution

Sentry Medical's Senturian Skin Tear Pack is an all-in-one sterilised wound care solution designed to aid in rapid assessment and treatment of skin tears among aged care residents. It contains easy-to-follow instructions to enable non-regulated workers to promptly attend to wounds, classify their severity and record treatment outcomes for later review by a nurse.

The Senturian Skin Tear Pack's effectiveness on resident skin tear wound recovery was the subject of a four-month independent clinical study across four related Australian aged care sites in 2021. The study was a random controlled trial that was overseen by Healthcare United and RMIT University, using a nurse practitioner who specialises in wound management.

The study found that the Senturian Skin Tear Pack — First Response: reduced average healing time for Type 3 skin tears from 50.9 days to 9.8 days; healed Type 1 tears 13.04 days faster, and Type 2 tears 26.8 days faster; reduced facility treatment costs from an estimated $20,037 to $2366 over a two-month period; and reduced average dressing changes for Type 3 tears from 17 days to just four days.

The Sentry Medical Senturian Skin Tear Pack is endorsed by the International Skin Tear Advisory Panel.

Sentry Medical
www.sentrymedical.com.au

Skin dressing

Frequent dressing changes are a routine practice in wound care. However, each day, injuries are caused through the traumatic removal of traditional dressings, causing unnecessary pain, increased risk of infection and higher management costs.

Skin tears are among the most common wounds among elderly patients. Fragile, aging and compromised skin has special needs when it comes to dressings.

Leukoplast skin sensitive technology uses a soft silicone adhesive and offers gentle and secure wound care solutions for highly sensitive or compromised skin, while providing an atraumatic and almost pain-free removal. The Leukoplast skin sensitive family of dressings offer a strong grip and gentle removal and can also help protect fragile skin, while avoiding unnecessary wounds and inflated costs due to increased treatment times and materials.

Leukoplast Skin Sensitive Dressings are supplied by Essity.

Essity
www.medical.essity.com.au

Dressing packs

Multigate SmartTab Dressing Packs have been assessed by ANTT as supporting effective Aseptic Non Touch Technique (ANTT), and are also climate neutral.

The dressing packs are designed to ensure Key Parts and Key Sites are protected in any procedure: the pack folding supports a safe and efficient opening; two-colour system clearly denotes sterile surfaces; and tabs provide a simple and effective way to open and position the aseptic field.

By measuring the life cycle greenhouse gas emissions associated with these dressing packs and offsetting the corresponding amount of greenhouse gas emissions, Multigate has made these packs climate neutral. This offset has been verified by South Pole.

MULTIGATE Medical Products
www.multigate.com.au/

BlastX: An antimicrobial biofilm wound gel innovation

BlastX is an antimicrobial biofilm wound gel innovation recently launched in Australia and New Zealand. BlastX has been available for some time in the USA and is widely used in podiatry, surgical and armed forces medical services. In Australia and New Zealand, BlastX is available to medical professionals treating patients in healthcare facilities and is also available in any community pharmacy across Australia for continuation of care in the community. It is a thick white hydrogel for use in all types of full and partial thickness wounds including burns, surgical wounds, leg and foot ulcers, pressure injuries, skin tears and graft and donor sites.

In additional to providing moist wound healing, BlastX innovatively works on multiple pathways to provide antimicrobial action. BlastX destroys bacteria and fungi, deconstructs biofilm and defends against bacteria recolonisation. It has demonstrated broad spectrum efficacy against bacteria including MRSA and Klebsiella and fungi and has effect against pseudomonas aeruginosa and staphylococcus aureus for up to five days.

The Xbio technology is a patented innovation developed by Australian company Next Science Technologies Pty Ltd and distributed in Australia and New Zealand by Oraderm Pharmaceuticals.

BlastX has dual action on genotypic and phenotypic pathways associated with the development of antimicrobial resistance, impacting functionality of both bacteria and biofilm resistance causing pathways. BlastX destroys bacteria cells by lysis and deconstructs the biofilm matrix, dismantling these communities of bacteria, and also preventing reformation of the biofilm.

BlastX ingredients act as a chelating agent, buffer, surfactant and moisture protectant. The chelating agent and buffer work to break the ionic and covalent bonds in the EPS (extra polymeric substance) structure of the biofilm. The metal ions are pulled into the gel and the biofilm structure collapses. The surfactant pulls the protein out of the bacteria cell wall and by osmosis the buffer enters the cell, causing the cell lysis. The pH of the gel is similar to that of the skin. BlastX also prevents the reformation of the biofilm by retaining the metal ions, required to reform the EPS structure, in the gel.

Miller (2015) demonstrated the effect of BlastX against Gram +ve and Gram -ve pathogens, showing the effect of BlastX to reduce bacteria and biofilm numbers, and inhibit bacterial growth of Staphylococcus aureus, Staphylococcus epidermidis, Pseudomonas aeruginosa, Acinetobacter baumannii, and Klebsiella pneumoniae.

A recent study by Matthew Regulski (2023) assessed the antibiofilm capabilities of a number of wound care products in the market and found that BlastX was the only product to achieve a three times greater log reduction in Staphylococcus aureus and Pseudomonas aeruginosa of a mature biofilm. This study also demonstrated the ability of BlastX to prevent biofilm formation in addition to biofilm disruption capacity.

Topical antimicrobials that reduce the bacterial bioburden within a chronically-infected wound may have helpful or harmful effects on the healing process; research conducted by Bounds (2021) found that BlastX may enhance the healing process by lowering inflammation and allowing transition to the proliferative stage of wound healing by day three.

BlastX is simple to apply, visibly thick and white in colour. Following wound cleansing, BlastX is recommended to apply up to 3mm thick to the wound edge, cover with a dressing appropriate the patient's skin condition and amount of exudate absorption required. It can be used in combination with NPWT and in highly exuding wounds. A small amount covers a large wound bed area, 1 mL covers 5 cm. It should not be used in combination with alginate dressings.

This novel antimicrobial agent, which is nontoxic and has a usefully long shelf life, shows promise as an effective agent for the prevention and treatment of biofilm-related infections (Miller 2015).

BlastX is available in single 7.5 mL tubes and 30 mL tubes from Symbion and Clifford Hallam.

For more information or education support please visit www.blastX.net.au.

Bounds, K., Colmer-Hamood, J. A., Myntti, M., Jeter, R. M. & Hamood, A. N 2021, 'The influence of a biofilm-dispersing wound gel on the wound healing process'. *International Wound Journal*, Vol. 19, Iss. 3. < https://onlinelibrary.wiley.com/doi/full/10.1111/iwj.13653>

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Psychiatric symptoms follow encephalitis: study

Survivors of encephalitis — an inflammation of the brain that can lead to permanent brain injury — are at a high risk of suicide and self-harm, according to new research.

Almost 5% of encephalitis survivors surveyed (4.4%), have attempted to take their life, and almost 40% (37.5%) have had suicidal thoughts[1], according to two new papers, 'Mental health outcomes of encephalitis, an international web-based study' released by Encephalitis Society and Kings College London and 'Suicidal thoughts and behaviours in Anti-NMDAR Encephalitis: Psychopathological features and clinical outcomes' published in the *Journal of Neuropsychiatry and Clinical Neurosciences*.

In those with autoimmune encephalitis, 12.5% of patients had suicidal behaviours during early stages of the illness with nearly half (5.83%) carrying out a suicide attempt.[2]

According to Dr Ava Easton, Chief Executive of the international charity, the Encephalitis Society, and one of the study authors, addressing the mental health impact is vital for ensuring encephalitis death rates and burden of disability are decreased.

"Our study found that psychiatric symptoms following encephalitis are common and highlight a need for increased provision of proactive psychiatric care for these patients and represent a call to action for increased research and mental health outcomes of encephalitis so that this patient group can be better supported," Easton said.

The new research focused on all types of encephalitis including encephalitis following infection from common everyday viruses such as the COVID-19 virus, flu, measles, herpes simplex (cold sore virus), bacterial infection and autoimmune diseases. Many Australian encephalitis survivors continue to suffer from various types of encephalitis; however, flood-related Japanese encephalitis virus (JEV) and Murray Valley encephalitis (MVE) cases have recently been on the rise with JEV declared as a Communicable Disease Incident of National Significance since March 2022.[3]

As at 5 January 2023, there have been 45 human cases of JEV notified in Australia (from 1 January 2021), with 35 laboratory confirmed cases across New South Wales (14), Northern Territory (2), Queensland (2), South Australia (6) and Victoria (11), with seven deaths nationally.[3]

The Australian Capital Territory and Western Australia have not reported any JEV cases to date; however, continue to monitor the situation closely.[4,5] The risk of JEV in Tasmania is currently assessed as very low.[6]

The Kings College study involved 445 respondents from 31 countries and also highlighted that 53.3% of survivors reported poor access to mental health care, 47.2% reported initial misdiagnosis of psychiatric or physical illness (18.2 and 66.0% respectively) and 78.5% reported an ongoing hypersensitivity that further impacted their mental health following encephalitis.

There is clearly a need for increased provision of mental health care for encephalitis survivors, and it's important to not only bring


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encephalitis but also its associated mental health impact into discussion, Easton said.

"Mental health issues, self-injurious thoughts and suicidal behaviours following encephalitis may occur for a number of reasons, including the direct biological effects on the brain during the early stages of encephalitis, the physical or psychological consequences of resulting disability, impaired self-image, limited social life, reduced financial security, dependency on others, pain, substance use or as an adverse effect of treatment.

Around 500,000 people globally are affected by encephalitis annually, equating to one person every minute. The illness leads to cognitive, physical or emotional difficulties including impaired memory, language problems, changes in decision-making, planning and organisation, personality changes, anxiety, depression, mood swings, fatigue, weakness and epilepsy among others.

Encephalitis can be life-threatening, killing up to 30% of those affected (mortality varies depending on cause). Globally, encephalitis is a leading brain health concern, with a higher incidence than multiple sclerosis, motor neurone disease, bacterial meningitis and cerebral palsy in many countries.

While the severity and symptoms of encephalitis can vary, they include flu-like illness, headache, drowsiness, uncharacteristic behaviour, inability to speak or control movement and seizures.

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Risk of death elevated for 18 months after COVID-19: study

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In the first three weeks after infection with COVID-19, patients are 81 times more likely to die than uninfected individuals, and the risk remains five times higher up to 18 months later, according to a new study published in *Cardiovascular Research*.

The study included almost 160,000 participants and found that COVID-19 is associated with higher risks of cardiovascular disease and death in the short and long term.

"COVID-19 patients were more likely to develop numerous cardiovascular conditions compared to uninfected participants, which may have contributed to their higher risks of death," said study author Professor Ian CK Wong of the University of Hong Kong, China.

"The findings indicate that patients with COVID-19 should be monitored for at least a year after recovering from the acute illness to diagnose cardiovascular complications of the infection, which form part of long COVID."

The occurrence of cardiovascular disease and death in infected versus uninfected individuals was analysed to ascertain the link. The data was obtained from individuals recruited before December 2020 when there were no vaccines available in the UK. The UK Biobank was used to gather information about more than 7500 COVID-19 patients diagnosed between 16 March 2020 and 30 November 2020.

Each of the COVID-19 cases was matched with up to 10 individuals without COVID-19 and a historical cohort from before the pandemic (16 March 2018 to 30 November 2018). The cohorts were matched for age, sex, smoking, diabetes, high blood pressure, cardiovascular and other health conditions, body mass index, ethnicity and deprivation. The average age across all three groups was 66 years, with an almost even mix of males and females.

Wong explained, "The historical control cohort was included to rule out the effect of routine healthcare services being reduced or cancelled during the pandemic, which led to worsening health and increased mortality even in uninfected people."

Medical and death records were examined for instances of cardiovascular disease and conditions such as stroke, atrial fibrillation and myocardial infarction, and were evaluated for the acute phase (within 21 days of COVID-19 diagnosis) and the post-acute

phase (starting at 22 days after diagnosis and continuing up to 18 months). The data revealed that patients with COVID-19 were approximately four times more likely to develop major cardiovascular disease in the acute phase and 40% more likely in the post-acute phase when compared with uninfected individuals.

Compared to uninfected individuals, the risk of death in COVID-19 patients was up to 81-fold higher in the acute phase and five-fold higher in the post-acute phase. Patients with severe COVID-19 were more likely to develop major cardiovascular disease or die than non-severe cases.

COVID-19 patients had a greater likelihood of several cardiovascular conditions compared with uninfected participants in both the short and long term including myocardial infarction, coronary heart disease, heart failure and deep vein thrombosis. Risks of some cardiovascular conditions — for example, stroke and atrial fibrillation — were elevated in COVID-19 patients in the short term but then returned to normal levels.

Wong said, "This study was conducted during the first wave of the pandemic, and future research should evaluate subsequent outbreaks. Previous research has indicated that COVID-19 vaccination may prevent complications, and further studies are needed to investigate its effectiveness in reducing the risks of cardiovascular disease and death after COVID-19 infection in patients with COVID-19 vaccination compared to those without vaccination."

European Society of Cardiology spokesperson Professor Héctor Bueno of the National Centre for Cardiovascular Research (CNIC), Madrid, Spain, said, "COVID-19 has had a huge impact on patients with cardiovascular disease, who were less likely to receive optimal care during the pandemic and more likely to die from the infection. This study shows that COVID-19 also increases the risk of having cardiovascular complications and dying in the first weeks after the infection and remains high for months, suggesting that specific cardiovascular monitoring may be appropriate in these patients."

"Compared to uninfected individuals, the risk of death in COVID-19 patients was up to 81-fold higher in the acute phase and five-fold higher in the post-acute phase."

New Strep A variant:

research urges enhanced international surveillance

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The surge in scarlet fever cases in the UK has been associated with a new variant of the Strep A bacterium called M1uk. Genomic surveillance has discovered the same variant is now circulating in Australia too.

Scarlet fever is caused by Group A streptococcus (Strep A), a bacterial pathogen commonly found in the throat and on the skin. While Strep A can cause common infections such as sore throat, scarlet fever and impetigo, in some rare cases, the bacteria can also lead to severe, life-threatening infections known as invasive group A streptococcus diseases (iGAS), like sepsis or toxic-shock syndrome.

In the study published in *Nature Communications*, researchers from The Peter Doherty Institute for Immunity and Infection (Doherty Institute) and The University of Queensland's Institute for Molecular Bioscience reported the detection of this particular strain of Strep A M1uk in Australia and discovered what makes this variant markedly different to the original bacterium.

Earlier studies showed that the new M1uk variant exhibits an enhanced expression of one particular virulence toxin that subverts the immune system. How this change took place and what its genetic features are had remained a mystery, until this team of Australian scientists unlocked its secret.

The University of Melbourne's Dr Mark Davies is a Senior Lecturer in Bacteriology and Laboratory Head in the Department of Microbiology and Immunology at the Doherty Institute, and co-lead author of this study.

"Through genomic surveillance, we were able to detect the presence and unappreciated expansion of this new Strep A variant within Queensland and Victorian public health settings.

"We undertook an extensive laboratory analysis with our colleagues at The University of Queensland, to characterise the mechanism by how this toxin has been upregulated and understand how the bug is changing," Davies said.

"So, through a process of elimination we identified that enhanced toxin expression was associated with a single mutation in a bacterial gene near the toxin. This mutation results in ineffective termination of gene transcription leading to elevated levels of the neighbouring toxin gene."

Professor Mark Walker from the University of Queensland said that while understanding the mechanism of how this new variant upregulates this toxin is a leap forward, they are still investigating why there has been an upsurge in cases.

"We need to monitor this variant to find out whether it is directly linked with the clinical increase of cases or not. To do this, we need to have enhanced genomic surveillance for this new M1uk variant," Walker said.

"Together with Dr Davies and his team and our other clinical and public health collaborators in Queensland and Victoria, we are continuing to provide genomic surveillance of Strep A.

"We've been undertaking sentinel surveillance for disease causing Strep A strains since 2012. Now that iGAS has been made notifiable nationally, we will be able to monitor its spread around Australia.

"Our research shows a new pattern of toxin expression and urges enhanced international surveillance," Davies added.

Professor Ben Howden, Director of Microbiological Diagnostic Unit Public Health Laboratory at the Doherty Institute, remarked that this project highlights the value of using genomic data to enhance the surveillance of infectious diseases.

"As we use genomics more routinely in public health microbiology, it will improve our ability to detect and respond to emerging threats such as this Strep A variant.

"We are currently integrating iGAS into a national genomic surveillance program, termed AusPathoGen, a government-funded initiative that supports genomic surveillance of notifiable pathogens, which will expedite our ability to detect problem variants" Howden said.

The partnership between the Doherty Institute and the University of Queensland researchers has recently been recognised with a philanthropic grant from the Leducq Foundation to support the development of an mRNA vaccine to reduce Strep A infections worldwide.

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On the pulse

Image: Peter Bennett

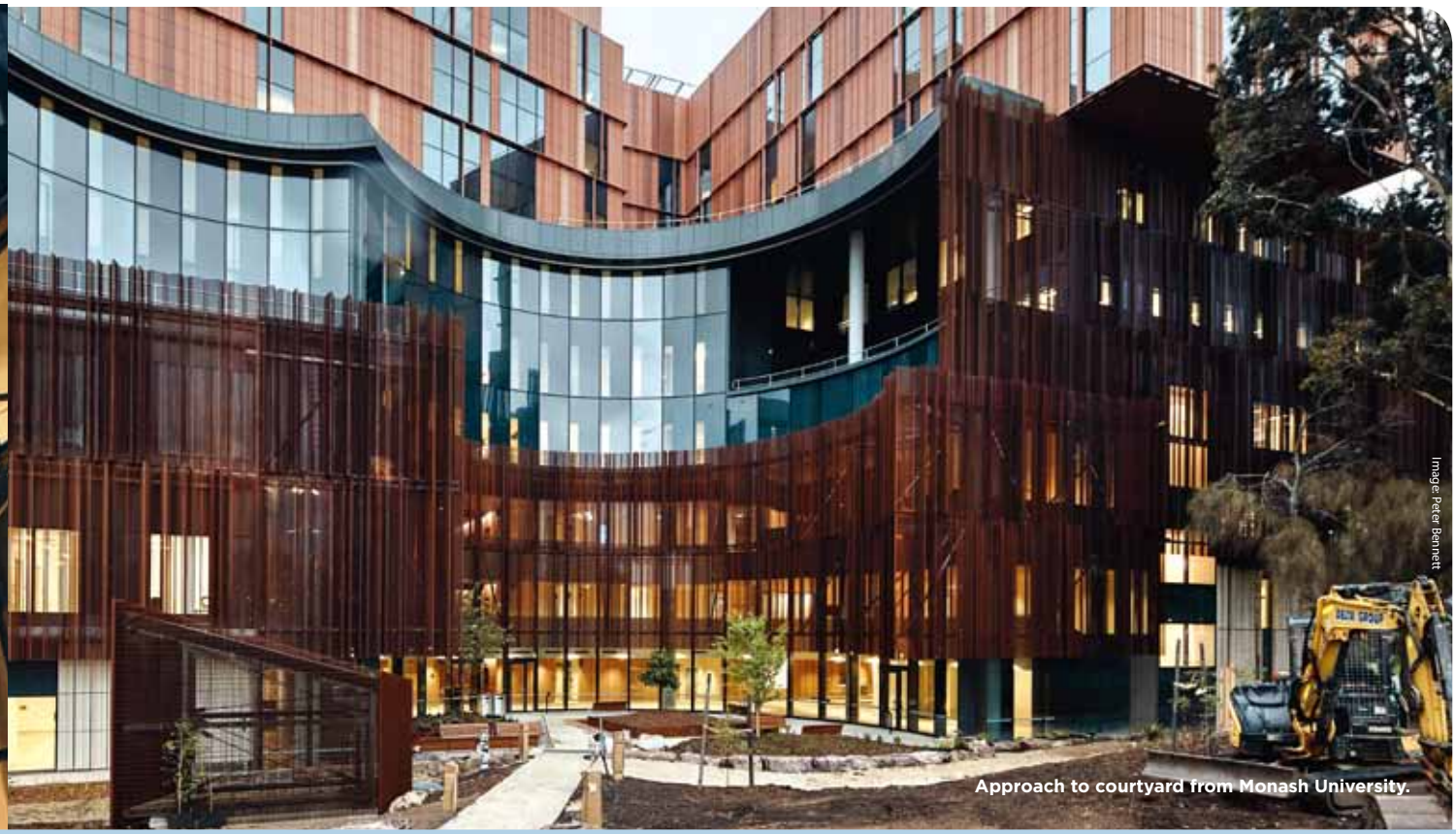
Level 2 atrium and courtyard.

The $564 million Victorian Heart Hospital, operated by Monash Health on the Monash University Clayton campus, is Australia's first specialist cardiac hospital.

Delivered by Conrad Gargett + Wardle, the 196-bed hospital features seven catheterisation laboratories and dedicates one of its eight floors to heart research by Monash University, along with the independent Monash Cardiovascular Research Centre.

The new hospital incorporates lessons learnt from other major international heart hospitals and pushes the boundaries of conventional hospital design. Key members of the design team, with Monash Health, visited cardiac hospitals in Singapore, Canada, the United States and the United Kingdom, for insights into the successes and shortcomings of these facilities.

"Experiencing other heart hospitals really allowed us to challenge the norm of traditional hospital design and how to do things according to Australasian Health Facility Guidelines in the pursuit of innovation," said the project's clinical planning lead, Paul Emmett, principal at Conrad Gargett.



Approach to courtyard from Monash University.

Image: Peter Bennett

The gravitational heart

The new building's human-centred design incorporates biophilic and salutogenic principles, with a seamless integration of architecture, clinical planning, interior design and landscape design to create spaces that make the outdoors part of the calming and healing environment.

"Scientific research well documents that providing a connection with nature within healthcare facilities significantly improves patient outcomes, including their experience and recovery rate," Emmett said.

"Armed with this knowledge, we designed the Victorian Heart Hospital with a large central courtyard — the 'gravitational heart' — and have maximised opportunities for engagement with the outdoors and surrounding landscape," added the project's architecture director, Meaghan Dwyer, a partner at Wardle.

The 'gravitational heart' acts as the centrepiece of the Victorian Heart Hospital, with the building's form wrapping around the landscaped courtyard. It is a focal point for people to find their bearings, and a recuperative place to connect with the outdoors, both physically and visually from within the building.

Hybrid operating room.

Image: Peter Bennett

"Scientific research well documents that providing a connection with nature within healthcare facilities significantly improves patient outcomes, including their experience and recovery rate."

Defining the character

"The hospital's design needed to allow the working day's activities to be seamless, and its organisation to be clear and legible. Equally important are the spatial, material and ambient qualities which define the hospital's character," Emmett said.

"It's these aspects that will strongly influence the mindset of its occupants and ultimately the type of healing environment that has been created."

The public spaces of the hospital radiate out from the circular form of the courtyard, in counterpoint to the rectilinear planning elsewhere. Circulation corridors, both public and clinical, frame views of the courtyard, along with the neighbouring university sports fields and the Dandenong Ranges beyond, enhancing visceral connections to nature and daylight.

The Victorian Heart Hospital has been intentionally designed to provide a highly personalised experience and alleviate the stress levels of patients and their families from arrival through to the clinical spaces.

"Upon arrival at the Victorian Heart Hospital, there is a sense of openness, with large voids and a central café, creating a feeling of a civic place rather than a hospital," said Wardle principal Stefan Mee, who led the architectural design.

"The progressive journey through the building gradually increases a sense of tranquillity in the clinical spaces, creating an atmosphere of safety and comfort for patients," he added.

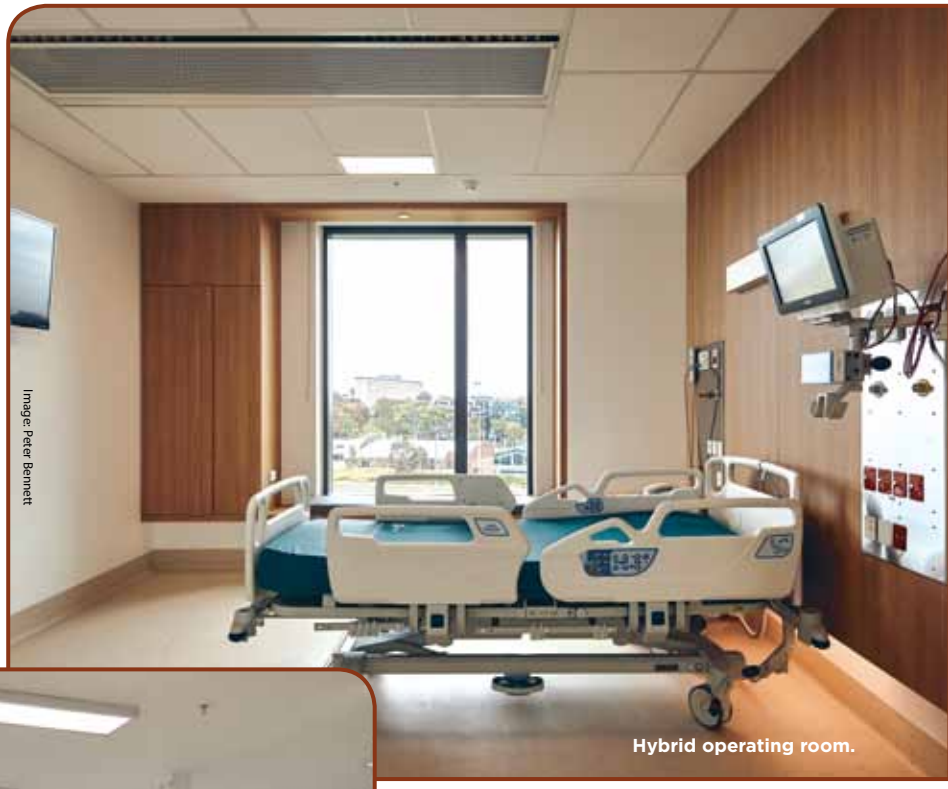


Image: Peter Bennett

Hybrid operating room.

Image: Peter Bennett

Level 2 Monash University, PC2 Lab.

Main entry.

Image: Peter Bennett

Natural timbers, earthy tones and a unified approach

The carefully crafted interior palette incorporates natural timbers and earthy tones, drawing inspiration from the colours and textures of the surrounding landscape including the historic Matheson Tree — a grand >400-year-old river red gum that stands proudly at the main entrance.

The striking weathered steel facade establishes the Victorian Heart Hospital as a landmark building on the Monash campus, while gently nesting within the tree-lined landscape and providing protection from the sun.

"The perforated steel screen, which will weather over time, reduces the heat load to the building and minimises glare while still permitting views out due to the density of perforation," Mee said.

"By diffusing natural daylight, the screen also softens shadows and calms the interior."

The design process was initiated with a project-wide design-visioning workshop facilitated by former Harvard professor Sarah Williams Goldhagen, an award-winning writer and lecturer on architecture and landscapes, cities and urban design, and infrastructure and public art. This workshop unified the clients, stakeholders and design advisors in a design vision that has led to a highly successful project outcome.

The S-Monovette® is the revolution in blood collection.

The S-Monovette is an innovative enclosed blood collection system that allows the user to draw blood from the patient using the syringe or vacuum method, uniting the advantages of both techniques in a single product.

When used as a syringe, the phlebotomist has full control over the speed at which the blood is drawn into the tube. This is particularly useful for patients with fragile veins, such as the very young or elderly, where the use of the aspiration technique prevents even the most fragile veins from collapsing. When the tube has been filled, the plunger is simply snapped off to leave a primary sample tube which can be centrifuged and is compatible with all major analysers.

The S-Monovette can also be used as an evacuated tube by drawing the plunger fully down and snapping it off immediately prior to blood collection. This creates a fresh vacuum and ensures a precise filling volume, ensuring a correct dilution ratio.

The reduced vacuum pressure in the S-Monovette drastically reduces the rate of haemolysis and vein collapse, meaning increased sample quality and reduced costs associated with repeat collections. Furthermore, unlike pre-evacuated tubes, the S-Monovette does not have to hold a vacuum for many months after manufacture, which allows the membrane stopper to be thinner and more easily penetrated by the needle sheath. This minimises the movement of the needle in the vein when attaching the tube, ensuring optimum patient comfort.

The S-Monovette needle is ready to use so that there is no need for assembly to a holder. The needle is of a compact, low profile design, which reduces the chance of haematoma by allowing for a reduced angle of puncture and eliminates the possibility of needle stick injury caused by assembly of the needle and holder. The compact design also results in approximately one sixth of the sharps volume caused by using a pre-evacuated system, giving significant cost savings.

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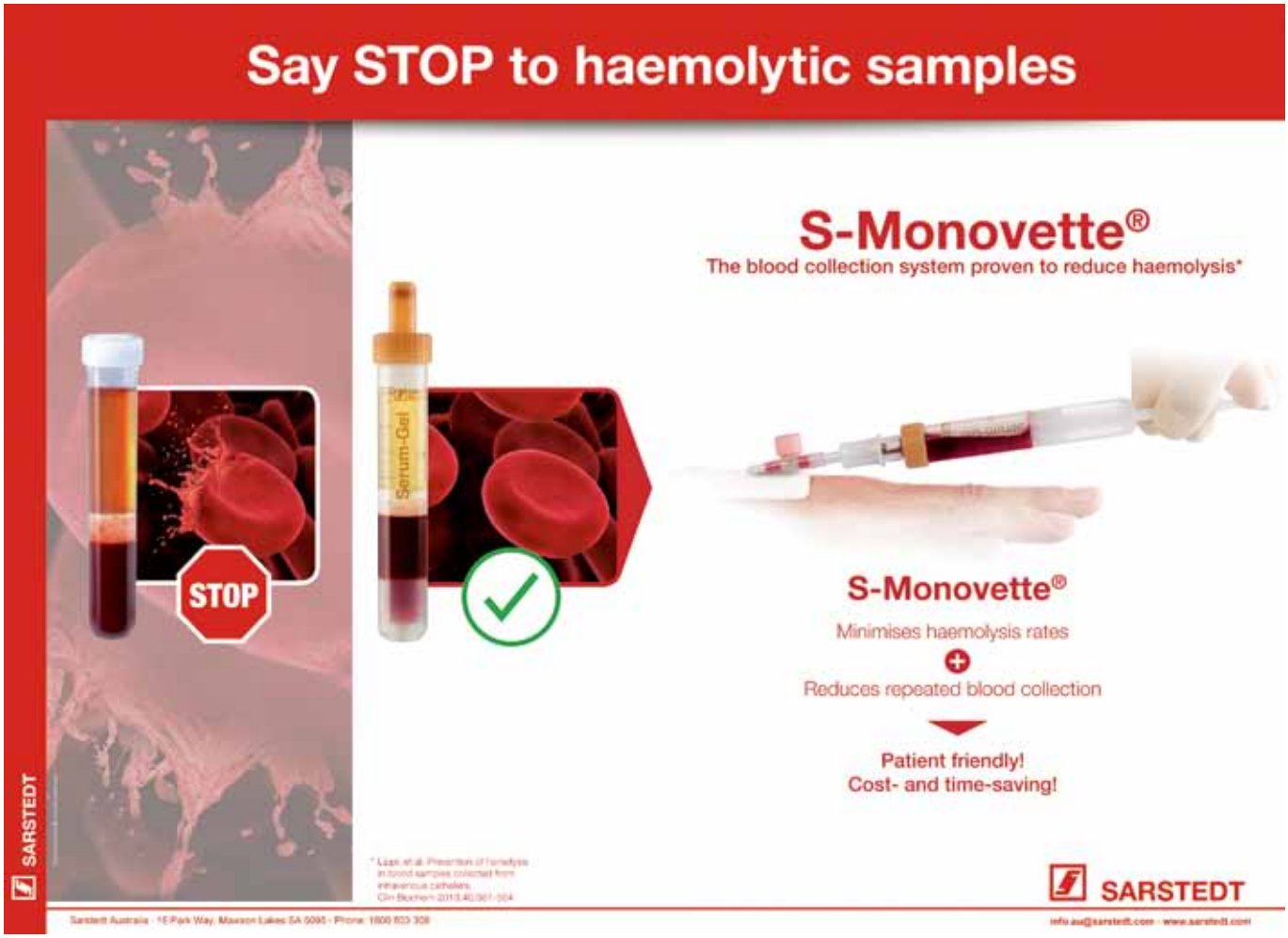


Meeting local care demands

Images: Supplied

A new 90-bed, sub-acute private hospital in Penrith Health Precinct at Kingswood in New South Wales has welcomed its first patients.

The new Matilda Nepean facility includes urgently needed mental health inpatient beds as well as rehabilitation, ambulatory care, hydrotherapy, geriatrics and palliative care services. A comprehensive wellness program is also available, which includes Matilda Nepean's signature gym and hydrotherapy programs.

Located in Kingswood's health and education precinct opposite Nepean Hospital, the new facility creates opportunities for integrated healthcare services and allowing clinicians to seamlessly treat public and private patients across multiple facilities.

The facility also features a new rehabilitation centre which includes a 70 square metre hydrotherapy pool with lift and step access, an expansive gymnasium and modern changing rooms, bathrooms and showers – all with hotel-style fittings and amenities. The rehabilitation centre can be accessed as either an inpatient or day therapy basis, with all rehabilitation programs overseen by experienced rehabilitation physicians and delivered by a "highly-skilled multidisciplinary team".

The $44 million hospital is owned by investors in Australian Unity's $3.7 billion Healthcare Property Trust and leased to operator Matilda Health Care under a 30-year lease. Construction of the hospital commenced in April 2021.

Australian Unity's Healthcare Property Trust also owns several parcels of land opposite Matilda Nepean, totalling 3565 square metres. In the long term, further development stages may expand the hospital's facilities and capabilities to grow with the needs of Western Sydney.

Dr Harry Pannu, Managing Director of Matilda Health Care, said Matilda Nepean will play a vital role in meeting Western Sydney's evolving health needs.

"With mental health conditions rising and the population of older Western Sydney residents set to grow 166% by 2036, there is clear demand for centrally located, high-quality treatment options.

Matilda's clinician-led approach means "the highest quality of care is embedded into every aspect of the patient journey, from our inpatient therapy sessions and day programs to the hospital's boutique, hotel-like setting", Pannu said.

Chris Smith, General Manager of Healthcare Property, Australian Unity, said, "We are also excited about the longer-term opportunity to work with Matilda in expanding the hospital's facilities and capabilities across our adjacent parcels of land, adding additional beds, services and facilities to grow with Western Sydney. This is something investors, tenants and patients in the western suburbs can look forward to," he said.

O_2matic PRO: automated closed-loop oxygen therapy

The O_2matic PRO is a novel medical device that brings oxygen treatment to a new level. The technology was developed in close cooperation with four hospitals in Denmark and is demonstrated to quickly stabilise arterial oxygen saturation in patients suffering from conditions that can lead to respiratory distress[1,2].

The O_2matic PRO solves the issue of the labour-intensive titration of oxygen flow rates associated with the current manual apparatus. Oxygen flow is automatically titrated responding to real-time arterial oxygen saturation (SpO_2) as measured by pulse oximetry. The O_2matic PRO controls the dose of oxygen administered to the patient to maintain the SpO_2 within a prescribed target range; hence reducing patient–nurse exposure times.

Supplemental oxygen therapy is central to the treatment of respiratory insufficiency caused by a variety of acute and chronic diseases. A clinical study conducted with the use of the O_2matic PRO on patients suffering chronic pulmonary diseases demonstrated its ability to keep oxygen saturation within a prescribed bracket with the use of its unique algorithm[1]. It shows that the O_2matic PRO maintains the oxygen saturation within the specified range 85% of the time, in contrast to 47% achieved by the conventional practice, while decreasing episodes of hypoxemia[1]. Another study conducted on admitted patients of the 2020 global pandemic demonstrated similar results. Using the O_2matic PRO, medical staff were able to maintain patient oxygen saturation within the prescribed bracket 83% of the time[2].

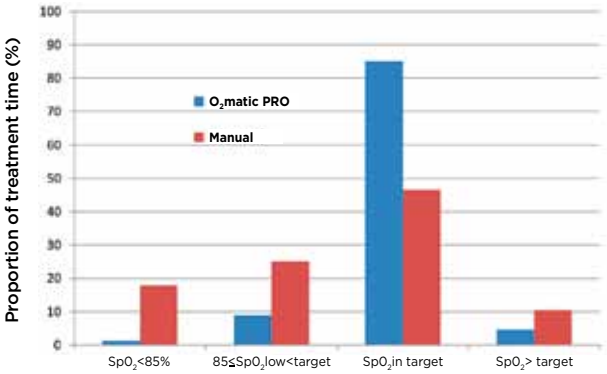
Key benefits of closed-loop oxygen therapy:

- Improving patients' time within the target SpO_2 levels[1,2] hence reducing mortality rates[3].
- Reducing oxygen consumption by up to 50% [4].
- Faster weaning from oxygen and reducing length of stay [5].
- Reduction in costs of care [6] and patient–nurse exposure times.

Automatic closed-loop oxygen therapy has been the subject of many more clinical studies with promising outcomes. To request a summary of clinical studies and technical features, please visit our website www.boc.com.au/o2matic.

The O_2matic PRO device easily connects to existing oxygen wall outlets or oxygen cylinders.

Patient arterial oxygen saturation levels during oxygen treatment



The O_2matic PRO maintains the oxygen saturation within the specified range 85% of the time in contrast to 47% achieved by the conventional practice in patients with chronic respiratory disease[1].

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Featured Products

Keep up with the latest industry innovations

Air cleaners

The Camfil CC6000 air cleaner is designed to purify air in large spaces and includes certified HEPA and carbon filters.

The HEPA filter is certified to the EN1822 standard, while the carbon filter is tested and certified according to the ISO1021-02 standard.

Camfil's CC6000 unit is suitable for combating airborne contaminants, such as viruses and particulate matter in a range of applications, including hospitals, health care, pharmaceutical, laboratories and other large indoor environments where people need to be protected.

Air cleaners can help healthcare facilities remove airborne contaminants, particulates, dust, odours, gases and pathogens without the need to replace or reconfigure the HVAC system. They supplement the HVAC system to not only protect people, but also to reduce energy consumption.

Camfil's CC6000 air cleaner also provides healthcare facilities with a key piece of equipment, capable of converting regular rooms into isolation units. Isolation rooms contain the spread of pathogens from infected patients and are designed with an air pressure that is negative relative to the adjacent rooms. This prevents air, which may contain dangerous viruses, from flowing out of the room through open doors, windows or even through unseen cracks in walls.

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Hand sanitiser and moisturiser

Modern healthcare workers understand that regular hand hygiene has never been so important. Increased hygiene frequency can cause dry, cracked skin which compromises skin integrity.

Bactol Sanitisers can help alleviate this problem in two ways. Firstly, by delivering the right type and amount of cleaning agent for each hand hygiene application. Secondly, every Bactol product is enhanced with emollients that help keep skin soft, smooth and healthy.

The Bactol range of products is fully Australian made; the result of decades of research and development, including extensive feedback from healthcare workers and facilities.

The Bactol range includes Bactol Clear, Bactol Blue, Bactol 2% CHG and Bactol Moisturiser.

Whiteley
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Allied health software

Lumary has launched new software designed for the busy allied health professional to optimise their entire practice while delivering more outcome-based care.

Following suit from its sister-software Lumary CM — the end-to-end care management platform — Lumary AH hosts innovative features tailored to the specific needs of allied health providers. Co-designed with industry leaders, its easy-to-use interface helps therapists and the entire workforce to boost productivity and run any allied health practice more efficiently.

Lumary AH takes the stress out of managing client waitlists with intelligent appointment booking and client forecasting features. By streamlining the entire service delivery journey, providers can make the clients feel valued right from the start.

By harnessing the power of Lumary AH to transform service delivery, providers can avoid admin bottlenecks and manual data entry. Lumary AH helps to optimise team performance, speed up invoicing processes and claim faster — all whilst remaining compliant with funding bodies and insurance companies. With just a few clicks, providers can quickly claim from the NDIS and Medicare — easing the burden of client billing.

With intuitive analytical dashboards, providers gain insights into clients and therapists to make smarter, data-driven decisions. Lumary AH's web-based enquiry process improves the entire customer journey — speeding up the time it takes to convert referrals into customers.

Lumary
www.lumary.com

Computer

In healthcare settings, germs can spread fast so it's crucial to harness the power of medical-grade technology wherever possible. Wamee AIO PCs are designed with infection control in mind.

These powerful devices operate without a fan and come equipped with a bacteria-resistant enclosure that is UL60601-1 certified for maximum infection control. The front panel is rated IP65 for protection from dust and other debris, while the enclosure itself is rated IPX2 for water resistance.

The Wamee medical-grade PCs offer advanced infection control. With integrated hot-swappable batteries, a 5 MP front camera and built-in speakers and microphone, these PCs are suitable for telehealth appointments. And with a powerful 11th generation processor, these PCs offer efficiency that will keep work moving at lightning speed.

Whether there is a need for 16 GB of RAM or up to 512 GB of storage, the Wamee PCs can be customised to meet specific needs. Plus, with the ability to integrate these PCs to a workstation on wheels, this technology can be taken on the go with no downtime and endless applications.

Hospital Products Australia
www.hpaust.com

Hand control

The LINAK hand control HB400 is designed for staff and patients to control the movement of healthcare applications. It is easy to lock selected movements and increase patient safety.

The user-friendly interface design makes it simple to use for patients. The HB400 is compatible with some LINAK analogue and all OpenBus control boxes, and the functionality can be adapted precisely to the market needs.

The HB400 comes with exchangeable cable and an IPX6 rating, allowing the product to perform for many years. Other features and benefits include: integrated magnet locking increases patient safety; two different hook sizes for suitable attachment; designed for healthcare staff with a good grip for both left- and right-handers; immediate overview of locked and unlocked functionality; and backlight for intuitive control day and night.

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Improving patient outcomes

through better data practices

Charlie Farah, Director, Solutions & Value Acceleration, Healthcare & Public Sector, Qlik

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Data impacts nearly everything we do, yet staff at about 67% of organisations still say they would follow their gut over the guidance of data, according to our latest research.

Healthcare organisations, where new challenges arise every day, can be especially vulnerable to this way of thinking, and tend to view past experience as a sufficient response mechanism. This can work, but when it doesn't, the consequences can be severe. Why? Because when new situations arise outside of one's scope of practice — which they so often do in healthcare settings — the rule of thumb fails.

Thankfully, about 87% of executives now expect their teams to explain how data informed their decision-making processes. In health care, this means empowering organisations to build and adopt a more data-driven culture that fosters better decision-making and improves patient outcomes.

Below are four key strategies, and some success stories, that can help healthcare practitioners use data to make informed decisions every day.

Big vs wild

By now, you may realise data is important for healthcare organisations to improve service delivery. But it is also important to note that we're not talking about big data here. Big data is locked up in different silos, can be largely unusable or require substantial effort to manually analyse and correlate.

Instead, the world is working towards wide data. Wide data breaks down those data silos and links data from multiple sources to deliver a more complete analysis. Gartner predicts that by 2025, 70% of organisations will be compelled to shift their focus from big data to wide data, providing more context for analytics and making AI less data hungry.

A real-life example of the usefulness of wide data comes from the Activity Based Management (ABM) platform launched by NSW Government Health. The ABM portal, powered by Qlik, enables practitioners to view the entire patient journey — across healthcare settings and through multiple data systems. For NSW's local health districts, this has resulted in more efficient delivery of services and higher value care.

"I want to emphasise here that no one needs to be a data scientist, but it is important be data-literate enough to analyse, question and communicate data."

Governance, not dictatorship

Data-driven decision-making creates an improvement focused leadership culture, nurtures a data-friendly environment and encourages curiosity from employees. But to make such a workplace culture a reality, data needs to be accessible via self-service.

Self-service here does not mean everyone can create, change and copy data. Rather, to develop a well-governed self-service environment. This means IT departments hold the ability to manage both the data and the access, while staff have the freedom to interact, analyse and share assets and results.

Western Sydney Local Health District (WSLHD), one of the largest local health districts in New South Wales, is a leader in this space. With our support, WSLHD has successfully adopted a governed self-service model, enabling clinicians to access and use integrated data for better patient care — while maintaining governance and compliance with the data.

Data literacy and better patient care

I want to emphasise here that no one needs to be a data scientist, but it is important be data-literate enough to analyse, question and communicate data. And staff with more data literacy are able to use data to make better decisions when it is part of their workflow.

In a healthcare setting, this equates to having robust data literacy programs in place so that workers and administrators read from the same script and work to the same standards across all settings — from primary to hospital, to recovery and home. Continuity of care in the modern-day healthcare workplace depends greatly on collective data literacy. Not only so patients transition smoothly from one setting or clinician to the next, but also so workers feel a sense of empowerment and efficacy across their scope of practice.

The Capital and Coast District Health Board (CCDHB) in New Zealand is one such organisation that has been building a data-driven decision-making culture through literacy. Not only does it foster greater data engagement, but it also encourages feedback to continuously improve insights and actions.

Empower your people

Of course, wide data, governed self-service and data literacy all need to be supported by technology. With the right technology, healthcare organisations can foster data-driven cultures that empower healthcare employees through informed decision-making processes, rather than through the 'ask, wait, answer' cycle, and improve patient outcomes.

The NSW Health Sydney Local Health District is leading the charge when it comes to workforce empowerment with its world-first application, which places real-time data into the hands of clinicians combating the opioid epidemic. Such innovative use of data analytics has allowed a multidisciplinary team of clinicians, researchers and IT experts to significantly reduce the time required for data-based research into unwarranted clinical variation.

An experienced healthcare CEO once told me, "There is no such thing as plagiarism in health care. We are all challenged by the same issues and seek to develop similar solutions. So if one person identifies something that works and shares it, others can learn and improve from your success."

This is what my team and I pride ourselves on, fostering learning and growth in our healthcare community and developing data-driven solutions for them.

Healthcare organisations must empower practitioners, increase their data literacy and improve their curiosity of data — we know that better informed healthcare workers make the best decisions, ultimately leading to better patient outcomes.

How asset management technology can help you spend more time on patient care

A hospital's number one priority is to provide the best possible care for patients, but many medical staff find themselves spending precious time they could be giving to their patients on tedious tasks like searching for essential medical equipment.

While hospitals would never intentionally put patients at risk, this is crucial time staff are having to manually search for assets rather than being able to concentrate on doing their jobs and it has the potential to cost hospitals financially, operationally and puts reputations on the line.

Hospitals have hundreds of assets to keep inventory of, from medical equipment to furniture and buildings, they form a key component of delivery services to the community both for staff and patients. The inability to be able to locate critical medical equipment whether for an emergency, regular use or maintenance, can have far-reaching and serious consequences like delayed or cancelled procedures, increased costs from having to purchase new equipment, reduced staff productivity, wasted resources and legal implications if a patient's health is impacted. In the absence of the right tools to ensure proper asset management, medical professionals struggle to provide patients with the care they need quickly and efficiently.

Track mission-critical equipment

Asset management software, like TechnologyOne's Enterprise Asset Management, helps hospitals to ensure the availability of required medical equipment while optimising its utilisation and reducing the cost of replacing, leasing and over-purchasing. It plays a crucial role in ensuring hospitals can fulfil their duties in providing high-quality care to patients by enabling staff to be able to locate assets when needed and ensure that core equipment is regularly maintained, tested and kept in reliable operational order.

Due to the high cost of medical equipment and technology, hospitals need to ensure assets are used efficiently and effectively. Asset management is a highly systematic, cost-effective process that can be employed to manage physical assets, including infrastructure, equipment, and facilities. This is particularly helpful for hospital staff to keep track of where assets are located, when they were last used, and how they are being used.

Support a preventative approach for better patient outcomes

Medical equipment aids in diagnosis, treatment, and aftercare, ensuring that assets are functioning correctly is critical to being able to give the highest level of patient care. From simple equipment like blood pressure monitors to complex MRI scanners, this equipment requires planned, preventative and reactive maintenance.

Global ERP company TechnologyOne's Sales Director for Health and Community Services, Vanessa Devine, noted that patient care outcomes are the top priority for hospitals and their staff, and the need to keep up-to-date, quality equipment to deliver the best care possible is imperative.

"TechnologyOne's asset management software enables hospitals to track and analyse asset usage and performance, so they can make informed decisions about when to replace equipment, repair it, or invest in new assets. This helps to reduce downtime, maximise the lifespan of equipment, and ensure that it is properly maintained and repaired, helping to improve the overall quality of care that patients receive," she said.

Asset management also helps to improve the efficiency of maintenance and repair processes in hospitals by providing a centralised and standardised system for tracking work orders and schedules, as well as the status of repairs and maintenance activities. This means that hospitals can ensure that work is being performed on time and that equipment is properly maintained.

In such a high-risk industry, hospitals are subject to several regulations and standards, including those related to medical equipment and facilities, that need to be followed to ensure the best patient care. Asset management software provides hospitals with a centralised system for tracking and reporting on compliance, which helps to ensure that they are meeting all required standards.

Utilising asset management software enables hospitals to spend more time delivering quality patient care and less time managing multiple data systems.

TechnologyOne's Enterprise Asset Management solution enables hospitals to focus on better health outcomes for patients, reduce operating costs and wastage, and manage compliance through improved visibility, accuracy and efficiency. Discover a system that offers a single source of truth with TechnologyOne.

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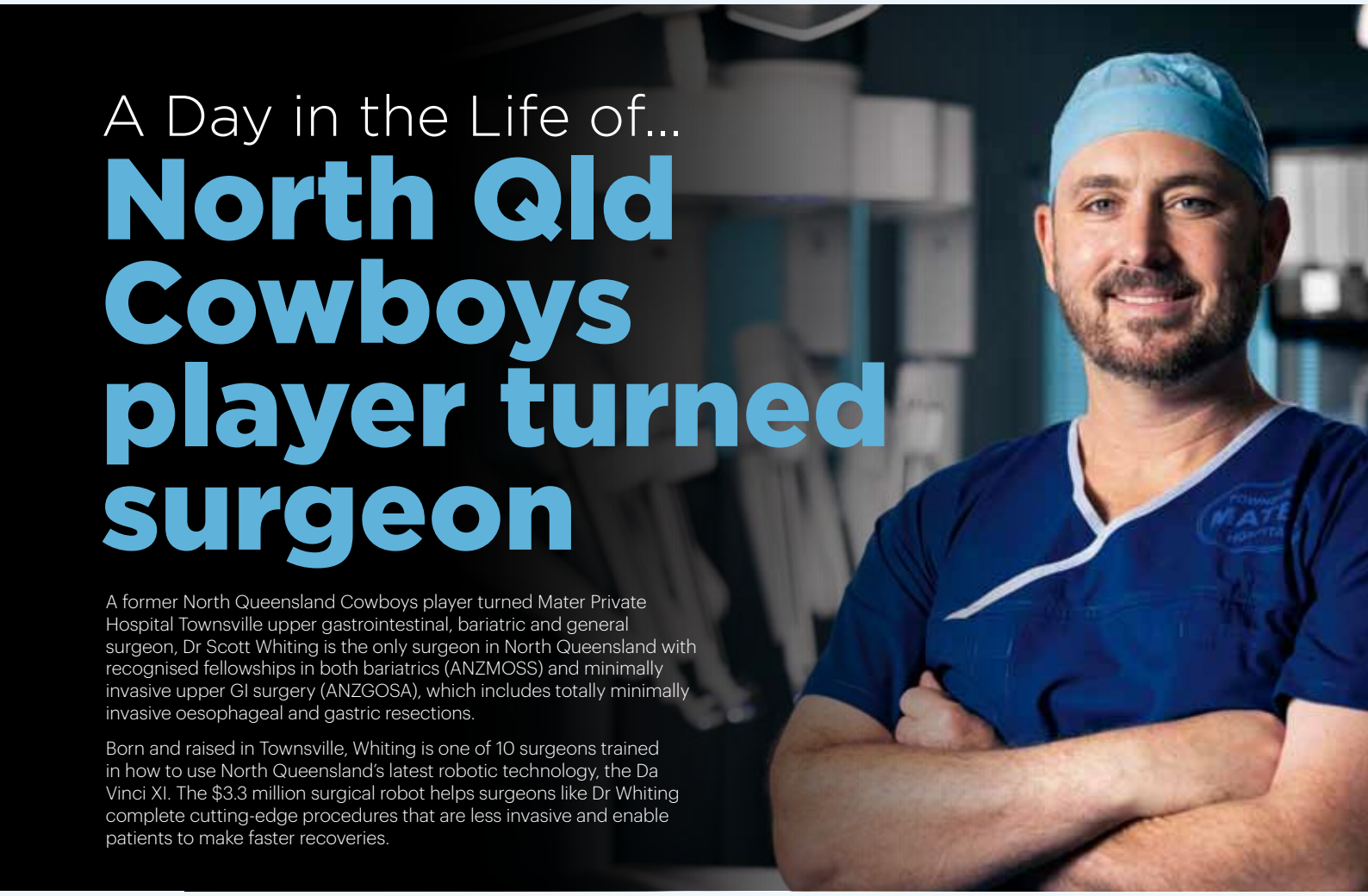

A Day in the Life of...

North Qld Cowboys player turned surgeon

A former North Queensland Cowboys player turned Mater Private Hospital Townsville upper gastrointestinal, bariatric and general surgeon, Dr Scott Whiting is the only surgeon in North Queensland with recognised fellowships in both bariatrics (ANZMOSS) and minimally invasive upper GI surgery (ANZGOSA), which includes totally minimally invasive oesophageal and gastric resections.

Born and raised in Townsville, Whiting is one of 10 surgeons trained in how to use North Queensland's latest robotic technology, the Da Vinci XI. The $3.3 million surgical robot helps surgeons like Dr Whiting complete cutting-edge procedures that are less invasive and enable patients to make faster recoveries.

06:30 I normally wake up anywhere between 6 and 6.30 am each day. I will typically exercise one to two times a week of a morning before work or for 30 mins at home. On my weekends I will go to the gym or take the kids for a walk up Castle Hill, or go for a bike ride around the river.

06:45–07:00 I will have a coffee and a protein smoothie.

07:15 I leave for the hospital, and it takes approximately 10–15 minutes to either the Mater Private Hospital Townsville or the Townsville University Hospital.

06:30 — 06:45 — 07:15 — 08:00

08:00 I always review my cases for the following week usually on Sunday evening and again the evening prior whether that be for theatre, endoscopy or in clinic. My surgical list usually starts about 8 am.

I always review the case prior and plan my surgical approach. There are some wonderful videos and resources shared by other surgeons to help refine technique and improve efficiency which I refer to often. We always complete WHO (World Health Organisation) safety checks.

My average list would include four to six bariatric procedures including revisional cases, which can be challenging. I also complete complex hiatal hernia surgery and general surgery including gall bladder and hernia surgery. I usually complete minimally invasive esophagectomy/ gastrectomy surgeries on a weekend or all-day list.

Images: Supplied

10:00 Surgery time can vary on complexity. Procedures such as cholecystectomies, inguinal hernia repairs and sleeve gastrectomies are completed well under 60 minutes. Totally minimal invasive oesophagectomies can take all day.

12:00 Time for a quick bite for lunch (depending on what case I am working on) and then it's back to theatre.

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18:30–19:30 I typically leave the hospital for home.

18:30 This is about the time I finish and then review my cases for that day on the ward before heading home; however, the weeks I am on-call may mean I am operating well into the night with emergency cases.

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19:45–20:00 I am home late most evenings and therefore I will come home, have dinner with my wife (unless it's very late!) and have some downtime for a couple of hours before heading to bed.

10:00 12:00 18:30 19:45

A Day in the Life is a regular column opening the door into the life of a person working in their field of health care. If you would like to share a day in your working life, please write to: **hh@wfmedia.com.au**.

Stress-free storage

How the right medical storage solution can improve infection control in aged care.

It's no secret that the Aged Care sector has endured a difficult period over the past few years due to COVID-19. Aged Care facilities are now subject to closer scrutiny than ever before, including how they deal with the ever-changing plethora of rules and regulations.

It's no easy feat to maintain quality control in the face of such a challenging landscape, but taking steps to provide smart and simple solutions in critical areas of aged care — such as safer dispensary and medical storage systems — is an effective way to minimise risk.

Using an advanced solution like Flowsell can help your organisation in an important way, ensuring that all medication and medical supplies are stored safely, protecting patients, staff and the organisation as a whole.

Flowsell is Australia's leading provider of hygienic shelving and storage systems for hospitals, aged care and pharmacies. The range of innovative storage solutions are designed to maximise day-to-day efficiency, and save you time and stress.

Flowsell has specifically designed storage systems that not only optimise storage space and accessibility of medications, they reduce contamination risks and improve infection control. Your aged care facility will comply with the most stringent of regulations while your team benefits from a more efficient workflow.

Is your nursing station still using plastic tubs to store medical equipment? While they might seem like a great storage solution, plastic tubs collect and retain dust, dirt and grime from airborne particles, and shouldn't be used to store any medical products. For the same reason, solid surface shelves should be avoided for all pharmaceutical products, needles, syringes and giving sets. Flowsell shelving solutions are cleverly designed to provide superior airflow to minimise the build-up of potentially life-threatening contaminants.

Flowsell SlipShelf

The ultimate for infection control, featuring lots of perforations to minimise the build-up of dust and contaminants.

Flowsell Medication Cabinet

The polycarbonate see-through doors allow for quicker medication identification and less handling. Closed doors minimise the build-up of contaminants like dust. These can also be retrofitted with a swipe card system for restricted medications.

Flowsell IV Basket Gondola

Featuring lots of perforations to ensure good air flow and minimise contaminant build up. This vertical storage system also protects your nursing staff from lifting heavy cartons of IV bags.

The wide range of Flowsell products are considered the gold-standard of dispensary and medical storage, and as a 100% Australian owned and operated company, they understand the unique challenges of the industry. All Flowsell items are modular and can be ordered off-the-shelf in the perfect configuration for your facility.

Flowsell is the healthier solution for the critical and high-traffic medical storage areas of your aged care facility.

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To explore the full Flowsell range of safer storage solutions for hospitals and aged care, visit **Flowsell**
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Sustainable health care

In Australia, the health system contributes 7%[1] to total national carbon emissions. As against this, globally, health care contributes 4.4% to emissions[2].

To tackle the issue and ensure the health system can meet climate change challenges, the Australian Government launched consultation on the country's first National Health and Climate Strategy In March 2023[3].

While there is still a long way to go on the path to a 'net zero' world, hospitals, health services organisations, industry bodies and suppliers are making efforts to reduce their emissions. One such hospital and life sciences provider is Getinge. The company aims to become a CO_2 neutral company by 2025[4] through a stepwise approach in several areas. The target supports the company's objective to contribute to sustainable health care environmentally as well as socially. In this article, Ralf Schmidt, the Global VP of Sustainability, Getinge, reflects on the company's net zero journey and the role leaders could play in improving sustainability.

Health systems around the world are under increasing pressure to tackle climate change — what can health leaders do to improve sustainability and reduce emissions?

Improving sustainability demands a forward-thinking culture and focused initiatives, with customers, suppliers and additional healthcare and life science companies. We all need to work jointly together to create a better future.

One of the key focus areas for us is reducing emissions in our own production by implementing energy-saving plans and switching to renewable energy sources. We aim to achieve the emissions reductions goal by systematically implementing EcoDesign across product lines and monitoring life cycle assessments. We'll also continue to collaborate closely with our customers to find innovative solutions to reduce the amount of energy consumption of products in use.

What are the challenges on health care's journey to net zero?

Health care is a highly regulated market. Patient safety and optimal quality are of highest importance. This means implementing change is a bit slower compared to other industries. Speeding up the journey towards net zero starts at the production sites by driving ambitious energy-saving programs and switching to renewable energy. It continues with future-oriented investments for a more sustainable production and the development of sustainable product offerings. This requires reconsidering how new products could be best designed from a circular economy perspective, including recycling quotes and consumption of energy, water or gases in the use phase.

Another aspect is sourcing of product components, while taking into consideration the entire supply chain. This includes supplier assessments and sustainable logistics management for a net-zero effective supply and demand planning. For the entire healthcare sector it is important to align goals and efforts, to commit and to start now towards the target of net zero and not wait.

What are the key sustainability-related developments that will shape the future health landscape?

Medical technology industry and caregivers are together in the journey to net zero. Stricter environmental-related targets, laws and legislations will continue to unfold in the near future. Additionally, information on product-related environmental profiles, sourcing and production is becoming increasingly detailed, both from legal as well as market expectation perspectives. Separately, medical device companies are also requested to report on environmental, social and governance (ESG)-related aspects according to international and local legislation standards. All this changes the competitive landscape and is also expected to lead to improvement in sustainability of health systems and services.

Could you provide an update on Getinge's sustainability programs and initiatives?

At Getinge, we're focused on supporting sustainability programs and targets of clients and health organisations by providing future-oriented solutions and data evidence across the entire value chain: from sourcing, to production to products. We are committed to international standards and organisations, such as Science Based Target initiatives (SBTi), which secures high-level audits on our ESG reporting. By implementing EcoDesign initiatives throughout the entire innovation pipeline of products, we aim to shape the future for a competitive sustainable product and service offering. We always look for opportunities in collaborating with customers and suppliers, with an open dialogue about opportunities on optimisation. For example, innovative digital solutions supporting clients and health organisations leading to a meaningful value add.

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2. The environmental footprint of health care: a global assessment - www.sciencedirect.com/science/article/pii/S2542519620301212
3. Australia's first National Health and Climate Strategy kicks off - https://www.health.gov.au/ministers/the-hon-ged-kearney-mp/media/australias-first-national-health-and-climate-strategy-kicks-off
4. Getinge to become COâ‚‚ neutral by 2025 - https://www.getinge.com/int/company/news/press-releases/2020/3723392-Getinge-to-become-CO-neutral-by-2025/

Complexity, competency and context

Digital health workforce imperatives to lead amid disruption

Mark Brommeyer FAIDH CHIA

Health informatics and digital health, two rapidly growing disciplines, are becoming increasingly important for efficient and effective health service provision, particularly highlighted through the COVID-19 pandemic.

To ensure that we can get the benefits from the adoption and growth of health informatics and digital health, health service managers play a crucial role in leading and managing the implementation of digital health and the transformation of health care, while also managing business as usual.

The question then is: what capabilities and relevant competencies do health service managers need, to enable data-informed, strategic and operational decision-making, as well as the capacity requirements to lead and manage this digital health transformation?

Health service managers must manage the challenges of unparalleled growth in digital health literacy across practitioners and patients alike, within this time of systemic transformation. This is predicated on managers being proficient in planning and managing the digital tools and technologies through this changing, contemporary environment.

Health service managers require: competencies in leading the implementation and transformation of informatics and digital technology in the health sector; and system and organisational capacity for building the management workforce capability in the era of health informatics and digital health.

A scoping review published in the *International Journal of Medical Informatics* identified five key strategies for developing health management workforce competency and capacity. They included:

1. Embedding competency assessment into organisational management development processes.
2. Creating an organisation-wide competency model (based on nationally adopted frameworks, eg, the Australian Health Informatics Competency Framework) to guide developing competent managers.
3. Proving formal, digital development opportunities to managers.
4. Providing short-term training programs targeting focused competency areas.
5. Adopting work-based learning and capacity-building arrangements for training and support across the organisation[1].

Factors that were found to be important in ensuring health services managers are best prepared to lead and manage in the digital health context included[2]:

"System-level investment in overall workforce development;

A culture of trust and investing in innovation;

Identifying and developing training that is relevant to specific health professional groups (including managers), roles, levels of seniority, and settings;

Supportive team climate to reduce fear and uncertainty;

Opportunities to the design of monitoring and evaluating framework that measure the impact of the technology; and

Leaders and senior management of the organisations showing interest in and positive attitudes toward technology and innovation".

In ensuring sustainability of the healthcare system in such challenging times, the adoption of novel ways to meet the ever-rising demand for healthcare services is needed and, especially, a management workforce that has the competence to lead and manage change in the digital health environment.

The development of digital competence in managing the transformation of health care requires guiding policy, supportive organisational structures and robust leadership. It is essential then that investment in readying the health workforce, in particular the management workforce that can lead and manage the changing healthcare landscape, is prioritised.

Developing management workforce capacity requires a comprehensive approach to increasing the required health service management capabilities and system-wide capacity — this can include appropriate policy, supportive organisational structures and systems, and education and training offerings that are digitally aligned.

Health service management workforce development requires more than individual and one-off efforts. It requires system-level support, appropriate resourcing and recognition, and cooperative efforts to reduce

the barriers and hurdles to the ongoing development of essential digital health competencies and capabilities.

The following two publications provide a "proposed framework, for overall health management workforce development in the digital health era, suggests that national collaboration is necessary to articulate a more coordinated, consistent, and coherent set of policy guidelines and the system, policy, educational, and professional organisational enablers that drive a digital health focused approach across all the healthcare sectors, in a coordinated and contextual manner."[1] (p. 1) and "confirmed additional elements for the following four core management competencies that are important to health service managers working in the digital health context, including: 1) leadership; 2) operational and resource management; 3) personal, interpersonal and professional qualities, and 4) understanding the industry and environment. Factors that are critical to developing the system and organisation capacity in the use of health informatics and digital health technology, and leading and managing the adoption in the healthcare organisations were identified in three categories: policy/system; organisational structure and processes; and people factors"[2] Certified Health Informatician Australasia (CHIA) professionals earn 0.25 CPD points for reading this article towards their Australasian Digital Health Institute (AIDH) partnership points. CHIA is a professional certification program in health informatics managed by the AIDH.

*Mark Brommeyer is a Senior Lecturer in Health Care Management at Flinders University. He has spent over 30 years in the health sector, with significant experience in e-health strategy, change and risk management.

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Australasian Institute of Digital Health (AIDH)
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The future of pharmacy and the medical model

Tom Simpson*

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The boundaries of the pharmacy profession are shifting in Australia, which presents a fantastic opportunity.

Contemporary complex health care is driven by integration, collaboration and specialisation, and I believe pharmacy is increasingly defined by these characteristics.

Pharmacist prescribing is one such example of pharmacist specialisation realising benefits for the pharmacy profession, our medical colleagues and, most importantly, the people in our care. It is a hot topic today, but it has a much longer history in the hospital setting.

Since 2012, the frontier of pharmacist prescribing in Australia has been in the acute care setting, when the Alfred Hospital first piloted Partnered Pharmacist Medication Charting (PPMC). This collaborative model is now being embedded into practice across five states and territories and has been shown to improve patient safety and quality of care by reducing medication errors and delays to critical treatment, as well as increasing the job satisfaction not just of pharmacists, but of medical staff too.

The Victorian Government's evaluation of PPMC across a range of regional and metropolitan hospitals found that patients who had received PPMC spent 10% less time in hospital than those who hadn't.

One of the 12 recommendations from NSW's ambulance ramping inquiry stated PPMC should be implemented in NSW Emergency Departments, in recognition of the benefits to safer patient care, patient flow and efficiency benefits with a constrained medical workforce.

Collaborative models allow both professions to practise at the top of their scope of practice, delivering true interdisciplinary synergy for the ultimate benefit of our patients.

This cooperation is key if we are to meaningfully address and prevent the 250,000 medication-related hospital admissions we see each year in Australia, which cost the healthcare system $1.4 billion annually.

In its review of pharmacist prescribing models, the Pharmacy Board of Australia (PBA) found no regulatory barriers in place for pharmacists to prescribe via PPMC, nor prescribing via a structured prescribing arrangement, within a collaborative healthcare environment.

Innovation around prescribing is just one in a wave of interdisciplinary advances in recent years. Hospital pharmacist-led stewardship programs in antimicrobial, anticoagulant, analgesic and antipsychotic treatments have also delivered greatly improved patient care outcomes, as well as benefits across key health system metrics.

Meanwhile SHPA has set the standard of pharmacy care in residential aged care in our Standard of practice in geriatric medicine, as a natural extension of the years of experience that SHPA and its members have in driving clinical pharmacy and medication safety in acute and subacute care.

We look forward to seeing more onsite aged care pharmacists practicing as part of multidisciplinary aged care teams in 2023.

The key to these opportunities is simple: teamwork.

True collaboration succeeds when health professionals genuinely share the same treatment and care goals across all settings, with the patient at the centre. Research consistently shows us that integrating a pharmacist into a clinical team delivers safer, more effective and more efficient results.

And success can be assured only if pharmacists with specialised skills have ready access to the education and knowledge networks while receiving recognition of their growing expertise and impact.

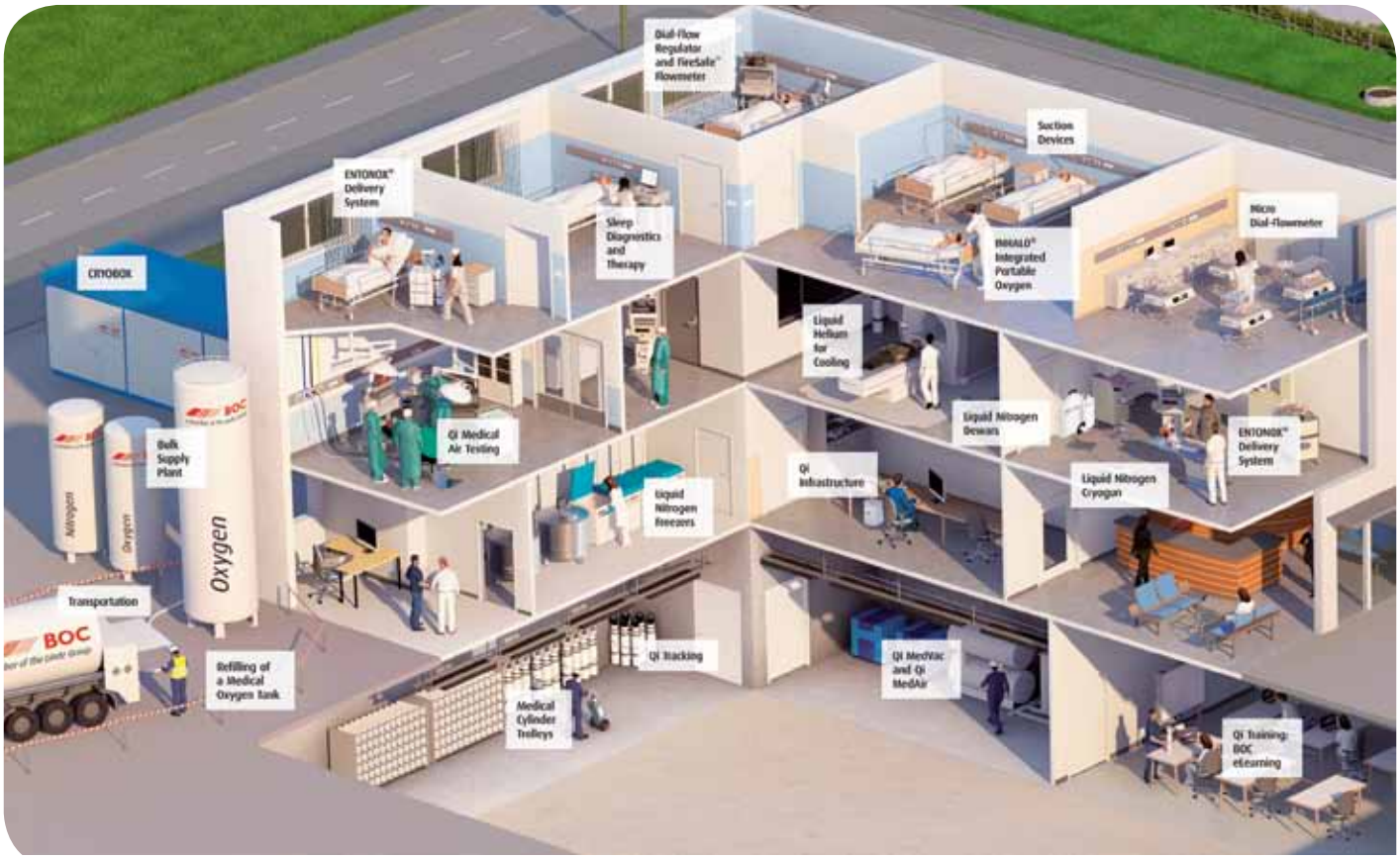
This is where SHPA leads the way. Through the leading Specialty Practice program, SHPA connects and uplifts pharmacists and pharmacy technicians who are committed to evidence-based practice on their professional journey, supporting them with innovative programs, tailored education and national networking, regardless of their skill level or location.

This influence and impact works two ways — across pharmacy, ensuring no individual is practising in isolation, wherever they're based; and between professions.

By building broader understanding of complex clinical journeys — and formally recognising the underpinning skills and experience — we can work towards a future in which we are defined more by what we can do, and by the care we can provide, than by where we work.

In this way, the advances made to ensure medicines safety and optimal outcomes for patients who have acute care touchpoints, can ripple outward to benefit those who don't.

*Tom Simpson is the President of the Society of Hospital Pharmacists of Australia. He was the 2018 Tasmanian Pharmacist of the Year and recipient of the 2019 SHPA Medal of Merit.



QI Risk Medical gas pipeline system and operational assessment

A well maintained, fit-for-purpose medical gas reticulation system is critical to a healthcare facility's ability to deliver reliable and safe patient care. However, hazards in the system can be easily overlooked, potentially compromising reliable and safe operation of the facility.

Common medical gas system hazards within a healthcare facility can include:

- Outdated gas cylinder manifolds that no longer comply with safety design standards.
- Unmaintained or non-compliant medical air plants, compromising reliability of supply and delivering poor-quality medical air.
- Insufficient pipeline and instrumentation drawings, increasing the difficulty of troubleshooting and repair of the medical gas system.
- Non-compliant cylinder storage or cylinder segregation resulting in fire and asphyxiation hazards.

Drawing on over 60 years' experience of providing medical gas solutions and support, BOC has developed QI® Risk as a proactive approach to manage the safety, reliability and compliance of medical gas reticulation systems.

QI Risk is a comprehensive medical gas pipeline and operational assessment package involving a thorough inspection, risk assessment, detailed reporting and recommendations by one of BOC's medical gas reticulation experts; giving your healthcare facility the insight required to ensure safe and reliable operation of the complete medical gas reticulation system.

BOC will work closely with you to tailor the scope of the QI Risk assessment package to meet the specific requirements of your healthcare facility — this assessment can include all or part of the following areas:

- Liquid oxygen supply.
- Cylinder storage.
- Manifolds and manifold rooms.
- Medical gas alarm systems.
- Plant rooms, medical air and medical vacuum plants.
- Medical gas reticulation.
- Department, ward and theatre medical gas infrastructure.
- Medical gas training, policies and procedures.
- Safety regulatory requirements.

BOC can assist in the design, supply and fitting of medical gas infrastructure, equipment and maintenance; developing best practice solutions specific to a healthcare facility's needs and assisting in maintaining compliance and accreditation within current regulatory standards.

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Digital Health Festival returns to Melbourne

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Digital Health Festival, a multi-stream health technology conference, is set return to Melbourne on 6–7 June 2023.

The event will bring together 3000+ health leaders across the entire health ecosystem including hospitals, primary and allied care, aged care, pharmacy, research and policy. Attendees can mingle with technology companies, startups, clinicians and financiers, and meet the people and companies at the forefront of the digital health revolution.

This 'festival of ideas & innovation', to be held at Melbourne Convention & Exhibition Centre, will feature five stages, over 300 speakers, networking areas and HealthTech start-up village, all integrated within a large exhibition floor.

The Main Stage

Major health tech issues, including cybersecurity, data handling, interoperability, medical records and health care in the cloud will be in focus on the Main Stage. The new frontier of Blockchain, Brain chips, and healthcare in the Metaverse will also be explored here.

The Sci-Fi Stage

This stage will feature sessions on precision medicine, artificial intelligence and advancements in cybersecurity.

The Virtual Stage

Virtual care presents a massive opportunity to bring care closer to home and improve access and convenience for patients. Hear how Australia's leading health providers are providing 'Hospital at Home' services; understand how telehealth is complementing in-person care; find out how technology benefits rural and remote health; and learn the applications of remote patient monitoring inside and outside the clinical setting.

The Transformers Stage

A new idea is just the start, but how do you build, run and manage a great healthcare company? Attendees will learn about the technologies that can transform their digital practice; retain and develop a digitally empowered workforce; and meet the challenges of health management.

Budding healthtech entrepreneurs can understand what venture capitalists (VCs) are looking for, learn how to raise capital and hear from those who have trodden the entrepreneurial path.

The Care Tech Stage

Technology is coming to the rescue of a stretched health and aged care system. Rising consumer expectations are being met with new developments in assistive technology, robotics, virtual reality and much more. Attendees can discover how aged care, disability and NDIS can benefit from technology innovations and learn how big pharma and digital pharmacy are transforming drug discovery, delivery and health retail.

The Oasis Stage

This stage will feature sessions and solutions focused on mental health, workplace wellness, women's health tech and preventative health.

Biofilms and drains in healthcare... don't let them sink in!

In healthcare, with most sinks and drains being out of sight and out of mind, is it possible a source of infection has been missed?

Believe it or not, there's a city of potentially harmful microbes living in hospital drains. These cities are known as 'biofilms' and their residents are multispecies bacteria, which shelter inside protected from the lethal effects of passing disinfectants. Despite infection prevention and control protocols, these cities are increasingly linked to healthcare-associated infections (HAIs)[1]. Therefore, to wipe these communities out for good, it is critical the correct action is taken.

How do drain biofilms form?

Sinks and shower drains provide an ideal environment for microorganisms to form biofilms.

In many instances, it is everyday activities such as hand hygiene that supply the bacteria that colonise drainage systems. In addition, disposed fluids help provide the nutrients that support the growth of biofilms[2].

In fact, drains in healthcare settings are frequently contaminated with multispecies microorganisms including Gram-negative and antibiotic-resistant bacteria[3,4].

Biofilms, sinks and the link to HAIs

Contaminated wet and dry surfaces contribute to the transmission of pathogens that cause HAIs[5,6]. As for the surfaces we can't see, laboratory experiments have shown that contamination from sinks and drains can potentially be transferred to the hands of healthcare workers and subsequently to patients[7,8].

Contamination of sinks with multidrug-resistant *Pseudomonas aeuruginosa* and *Enterobacteriaceae* was also shown to be as high as **50.9%** (606/1191 sinks) from 73 ICU's participating in the study[9]. Furthermore, 459 sinks showed visible splashes with **30.5%** being close to the bed (<2m) with no barrier around the sink making them susceptible to splashing and authors concluded there were frequent and multifactorial infection risks associated with contaminated sinks in ICU[9].

Traditional strategies aren't working

Chlorine-based disinfectants are often used to treat drainage systems in the fight against biofilms. Free-floating microbes outside of the biofilm will be killed by traditional disinfectants, but the structure protecting the city limits chlorine's killing effect. Unless effectively removed, the biofilm will regrow rapidly and continue to pose a threat.

Peracetic acid: oxidative technology to wipe out biofilms

The residents of drain-based biofilms are up there with the hardest-to-kill microorganisms. When looking at potential disinfectants that can be used to tackle them, we should consider:

- **Log reduction:** The higher the better (Remember: log 1 provides 9% decontamination, log 2 = 99%, log 3 = 99.9%, etc.)
- **Prevention of regrowth:** The longer the better

Peracetic acid is proven to outperform chlorine-based (sodium hypochlorite) disinfectant in both criteria[10]. As a strong oxidising agent, peracetic acid breaks down biofilms and kills >99.9999% of bacteria living inside. It achieves this by altering their chemical stability through oxidation, forcing cells to rupture.

At Cardiff University, UK, researchers have created a hyper-realistic drainage tap model impregnated with wet biofilms[10]. They put Clinell Drain Disinfectant to the test and compared it to traditional disinfectants. **Clinell Drain Disinfectant** was found to have **higher anti-biofilm activity than chlorine-based** disinfectants (NaOCl 1000ppm).

Unlike chlorine, it eradicated biofilms throughout all sections of the drainage tap and prevented regrowth for at **least 4 days**[10,11].

To protect your healthcare facility's drains from biofilms, register your interest in Clinell Drain Disinfectant via info@gamahealthcare.com.au.

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In Conversation

with Anna Peeters

In Conversation provides a glimpse into the life of an 'outlier' — an exceptional person going above and beyond to improve outcomes in their field.

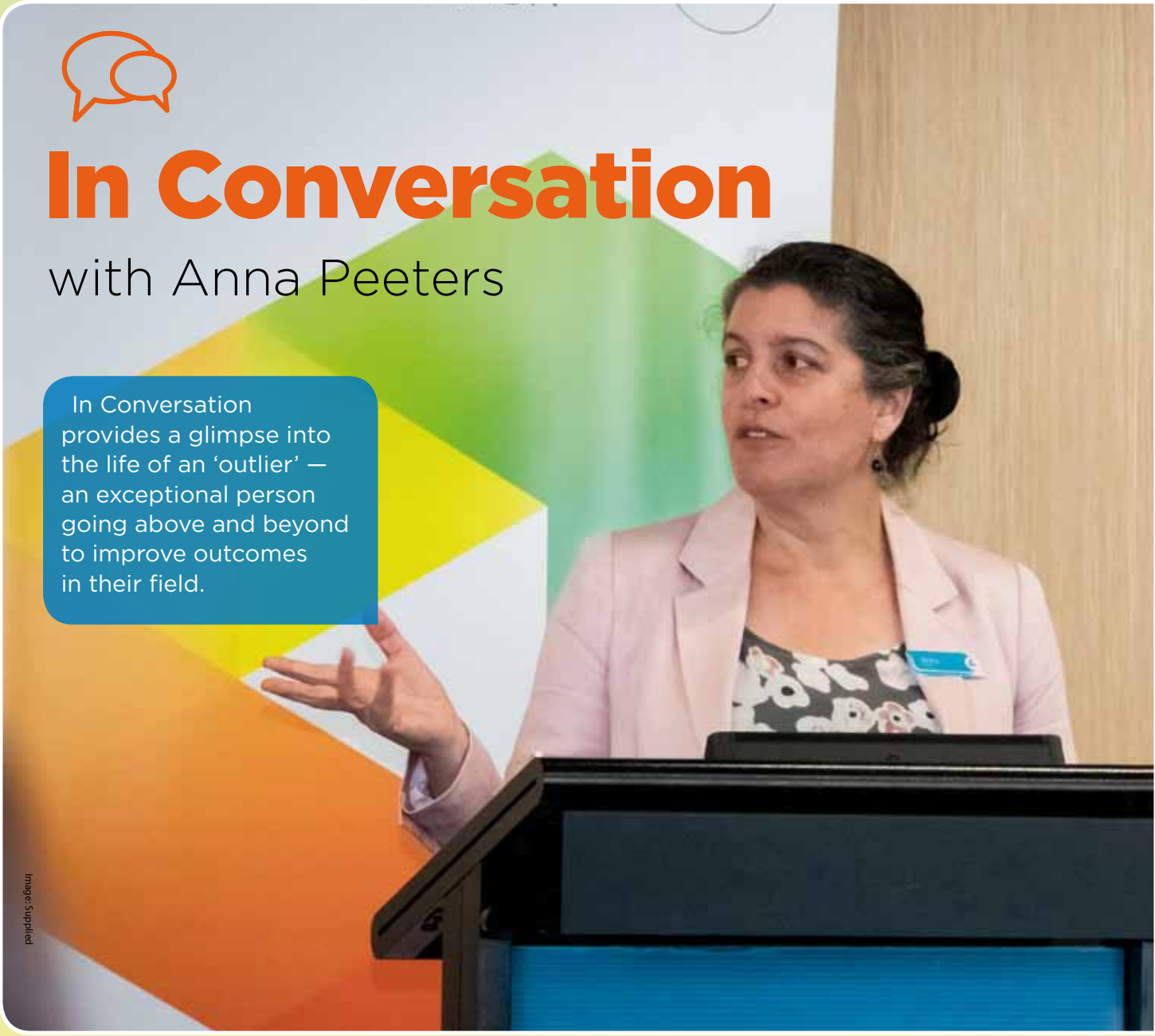

Image: Supplied

The majority of the global population, nearly four billion people, will be overweight or living with obesity by 2035 if current trends prevail, according to the World Obesity Federation's latest World Obesity Atlas (WOA).

Australia has a global preparedness ranking of 24 out of 183 according to the WOA, but almost half of the country's adults (47%) will be living with obesity by 2035.

Prevalence of obesity is rising more rapidly among children than adults, with rates expected to double among boys to 208 million (100% increase) and more than double among girls to 175 million (125% increase).

Organisations around the world are calling for national and global policy changes to tackle the root cause of this growing public health challenge. Closer to home, Anna Peeters, Director of the Institute for Health Transformation (IHT), Professor of Epidemiology and Equity in Public Health at Deakin University and recipient of the World Obesity Federation Andre Mayer Award (2014) is passionately working to improve monitoring and prevention, as well to transform health systems and the environments to enhance health and wellbeing for all.

Childhood obesity is expected to more than double by 2035. Where do you think Australia stands when it comes to prevention and management?

Australia needs urgent action on obesity to reduce the burden that arises for individuals and society.

Not only do we have a high prevalence of overweight and obesity in children, adolescents and adults but we also have substantial inequalities in obesity, with those Australians living with greatest disadvantage also experiencing the highest levels of obesity.

There is a major opportunity in Australia to implement more obesity prevention and management strategies, and to ensure access for those who need it most.

What are your thoughts on the National Obesity Strategy 2022–2032? Could you highlight three key barriers to change?

The National Obesity Strategy represents the opportunity I alluded to above.

If we can implement the National Obesity Strategy in its entirety we will have a chance to turn around the obesity epidemic, and reduce associated inequalities in health outcomes.

Obesity prevention and management are seen as complex, as obesity is associated with multiple risk factors and has multiple different health consequences.

There is also stigma associated with obesity prevention and management, which needs to be addressed to ensure that all health professionals can play their part in managing obesity.

To address these challenges strong political and social will is required. It would be ideal to see our national leaders, political and civil, calling for immediate and comprehensive implementation of the National Obesity Strategy.

How can we improve healthcare delivery and outcomes?

At present healthcare delivery is quite fragmented in Australia. Addressing chronic conditions like obesity requires a more joined-up system that can treat the whole person over their lifetime.

Together with the proliferation of information, this fragmentation means we need to focus on how best to ensure individuals and their carers can access the most appropriate information, prevention and management strategies when and where they need them.

You've been leading the IHT since its launch in 2019. What brought you to be involved in the initiative?

I am passionate about bringing together the partnerships and methods to solve important and complex problems.

The Institute provides the opportunity to do exactly that through bringing together the expertise of more than 200 researchers in the areas of determinants of health, obesity prevention, health economics, quality and patient safety, and the behavioural and psychological aspects of diabetes to address our health system's most complex challenges.

Tell us more about your current focus and goals for the next 12–24 months

The Institute integrates research and translation across the continuum of prevention and care, with themes around healthy populations and communities, and health service delivery and design.

At its heart, the work of the Institute is focused on the principle that health shouldn't be hard. Our industry–academic partnerships, such as our network with six private and public health services and our longstanding partnerships with Cancer Council Victoria and Diabetes Victoria, make IHT the partner of choice for public health and health systems research, creating local impact that makes a difference in communities everywhere.

Image: Supplied

In the coming 12–24 months, recognising the stresses of the pandemic, we have a strong focus on improving the equity of health outcomes across our communities, and boosting the experience of our early- and mid-career researchers. Our aim is for our research outcomes to make better health and wellbeing easier for everyone to achieve, now and in the future.

Image: Supplied

Breaking down stigma of FASD

Strong Born, a campaign by The National Aboriginal Community Controlled Health Organisation (NACCHO), supported by the Foundation for Alcohol Research and Education (FARE), hopes to raise awareness of the risks of drinking alcohol during pregnancy and safe breastfeeding practices.

The campaign has been designed in collaboration with representatives from various Aboriginal and Torres Strait Islander communities, which informed the development of resources to make yarning about this complex topic easier.

NACCHO CEO Pat Turner said, "The Strong Born campaign is about raising awareness and understanding of fetal alcohol spectrum disorder (FASD) and reducing stigma and shame.

"The campaign includes culturally appropriate health information for women and families, educational materials for our Aboriginal healthcare workers and guidance for healthcare providers that work with Aboriginal communities.

"In collaboration with our regional and remote member organisations, we'll also support opportunities to bring our communities together to create safe places for yarning about the impacts of alcohol on pregnancy.

"Growing strong healthy mums and bubs leads to healthy communities. Our communities need to understand the risks of drinking alcohol during pregnancy, and where to go for support, so they can ask for help if they need it."

FASD has long been an Aboriginal and Torres Strait Islander community controlled health priority and NACCHO has been working with FASD clinical, cultural and community experts across Australia to design the new campaign.

FARE CEO Caterina Giorgi commented, "Far too many Australians have FASD and there continues to be misinformation about alcohol, pregnancy and breastfeeding. It is great to have the opportunity to collaborate with NACCHO on this important campaign as part of the broader Every Moment Matters initiative, which provides evidence-based health information about alcohol, pregnancy and breastfeeding."

Senator Malarndirri McCarthy, Assistant Minister for Indigenous Health, said, "FASD is often referred to as the invisible disability but as far as many families and communities are concerned, it's a very visible part of daily life. It's important that people understand that FASD is not confined to a particular community or demographic; it is a disorder that crosses socioeconomic, racial and educational boundaries.

"That said, the AMA tells us that in some high-risk Indigenous communities the prevalence may be as high as 12%. All kids deserve the best start to life and the Strong Born campaign is an important campaign to keep raising awareness and taking the shame out of talking about these complex issues."

Campaign resources will be made available to all rural and remote Aboriginal and Community Controlled Health Organisations (ACCHOs).

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