THE AUSTRALIAN
HOSPITAL HEALTHCARE
BULLETIN WINTER 2017

HEALTH INFORMATICS

looking beyond health records

Food Service
Rethinking the food model for dementia care

Mental Health
Putting a 'value' on informal caring for those with mental illness

Infection Control
Improving infection prevention practices through consultation

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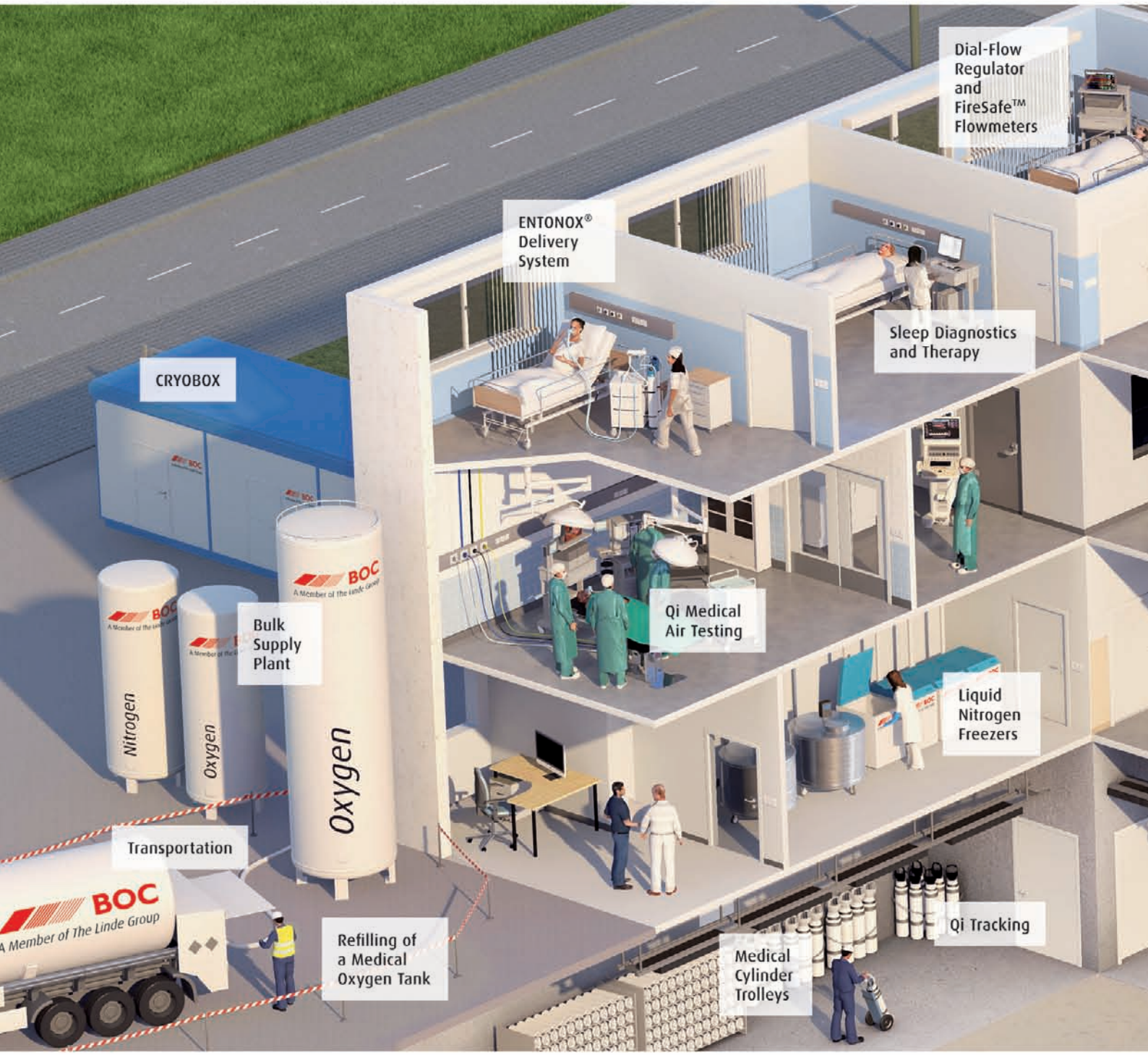

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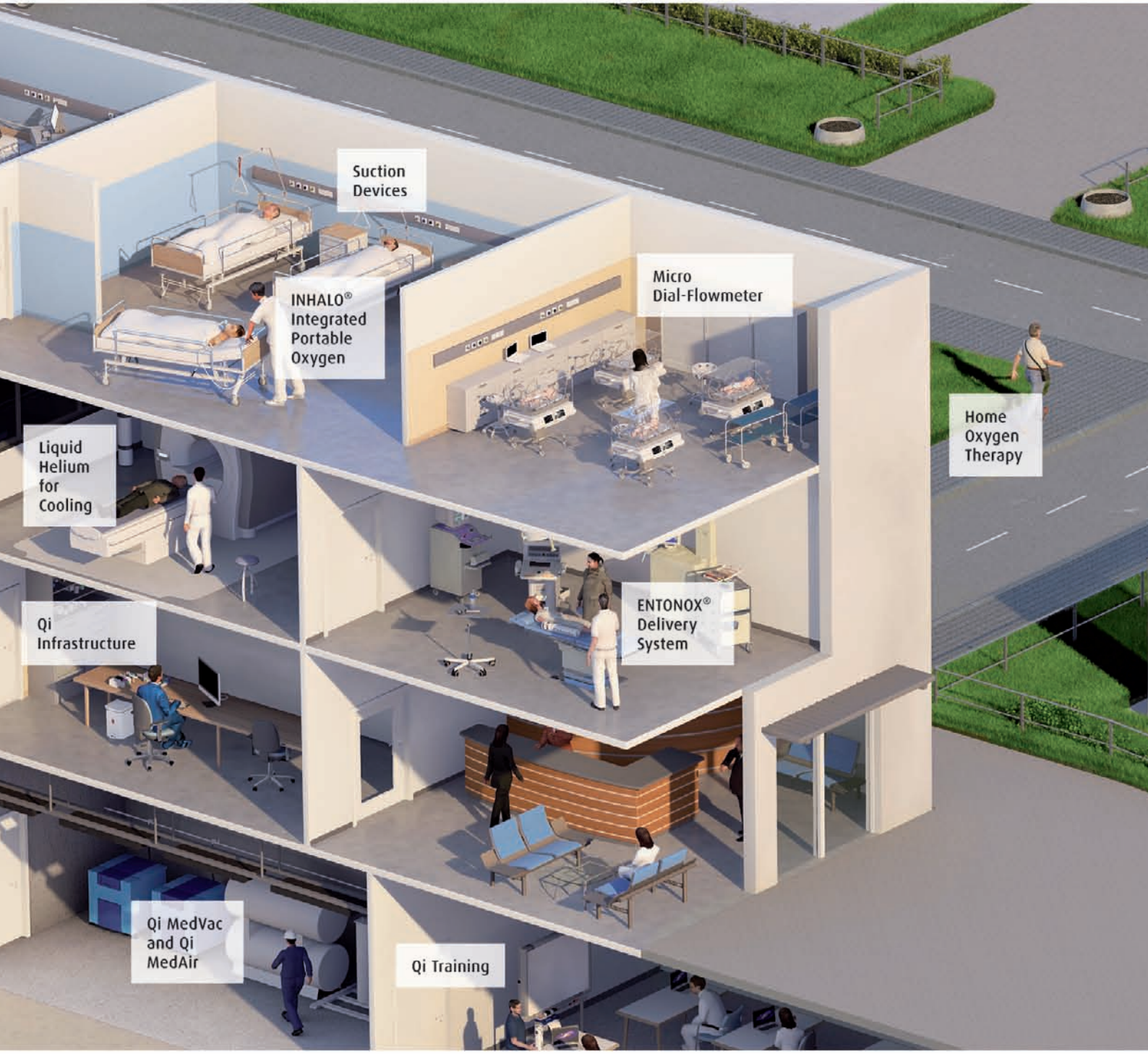

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Welcome to your Winter issue of AHHB

In this issue we explore health informatics and the trends and challenges in this growing field, which is transforming the way we share, store and use health information.

Leading expert Meredith Makeham, CMA of the Australian Digital Health Agency, describes the safety benefits and cost savings expected as the My Health Record expands to an opt-out model by the end of 2018.

And in the lead-up to the annual HIC conference, our regular digital health columnist, Louise Schaper, CEO of HISA, addresses the concerns expressed by both clinicians and consumers around the usability and safety of technology in healthcare and the groundswell of interest in user experience (UX).

Christine Giles, CEO of Portland District Health, Vic, tells us that "paper is no longer an option", and states her case for why EHRs should stay in the hands of clinicians, not administrators.

We speak with Professor Allan Fels about the launch of the 2017 'Carers Report' and his personal experience as a carer. This is the first time an attempt has been made to put an economic 'value' on informal caring of those with mental illness, and the outcomes are staggering.

Our Food Services feature shines a light on the Dementia Matters model that is enhancing the health and wellbeing of people living with dementia. The model focuses on stimulating the senses and memories connected with the love of cooking and the enjoyment of food. And it's working.

Since the model was introduced on a trial basis last year in two aged-care centres in the ACT and Qld, there has been a significant improvement in residents' overall health, BMI and enjoyment of the mealtime experience.

I am especially proud of this issue, my last as editor of *AHHB*. Thank you to the wonderful WF Media team and contributors who are constantly innovating to bring you the latest in healthcare trends and solutions.

Happy reading!

Corin Kelly
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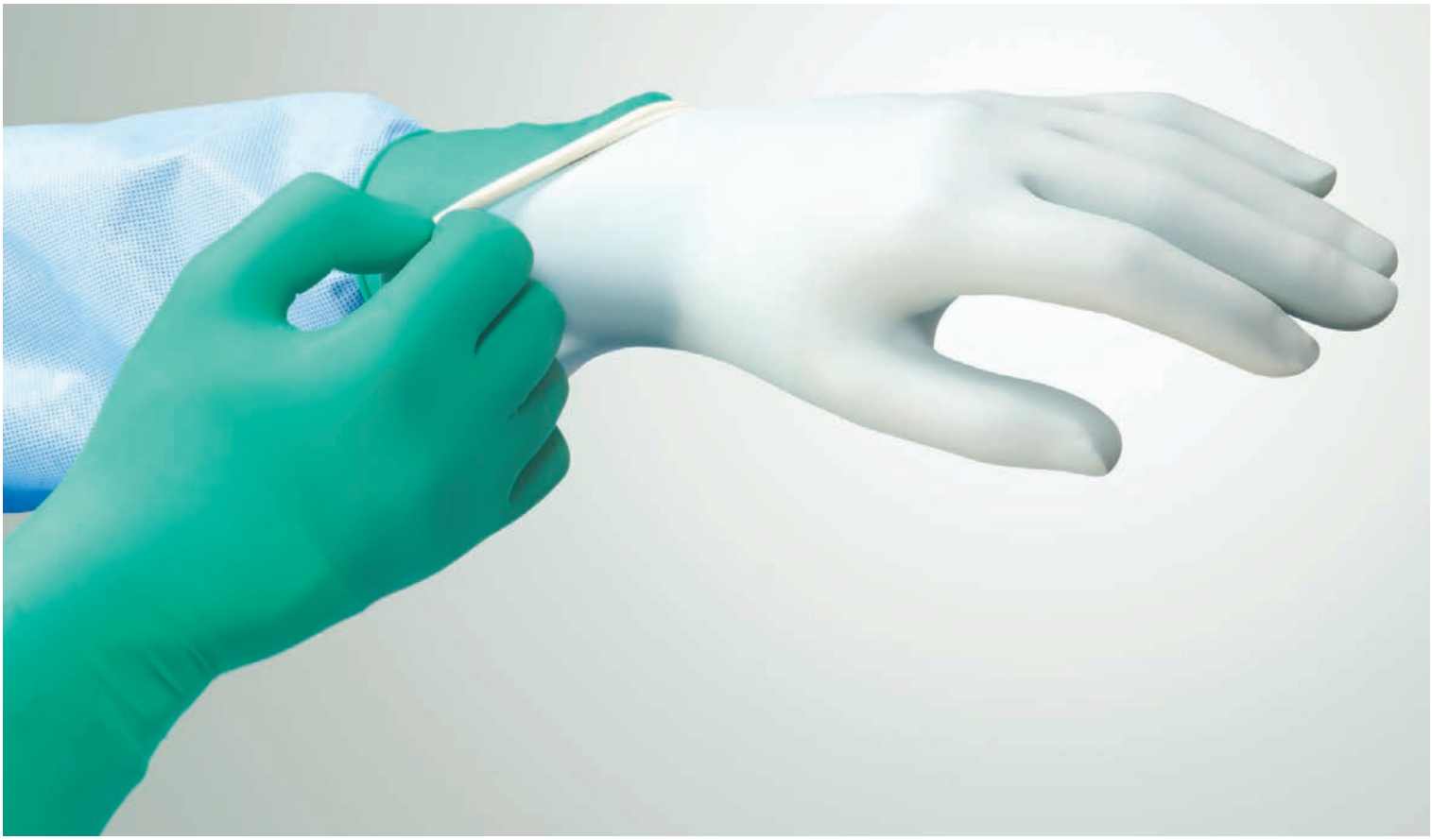
WANT TO CONTRIBUTE?
We welcome articles and research reports from health professionals across Australia for review for the quarterly print publication and our daily web page. If you have a story you think would be of interest, please send an email to **ahhb@wfmedia.com.au**.



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The Rounds
Updates in Healthcare

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Quicker service for private patients in public hospitals

A report released by the Australian Institute of Health and Welfare (AIHW) shows wait times for privately funded patients in public hospitals are shorter than for public patients.

But Alison Verhoeven, chief executive of the Australian Healthcare and Hospitals Association (AHHA), says the evidence from the report 'Admitted patient care 2015–16: Australian hospital statistics' is no reason to point fingers.

Verhoeven said, "While the AIHW has highlighted the difference in median waiting times for a group of patients that represents 6.9% of all patients admitted to public hospitals for elective surgery, the key issue is that public hospitals need to be appropriately funded to treat all patients on their waiting lists.

"This includes the Commonwealth and the states and territories reaching a sustainable funding agreement beyond 2018, as all first ministers agreed at the COAG meeting in April 2016," she said.

Verhoeven supports the use of private health insurance in public hospitals and stresses that while presenting only a national figure is a blunt approach, the National Health Reform Agreement discussions between the states, the territories and the Commonwealth must ensure that public hospital resources are sufficient to deliver services to public patients, including elective surgery, in a timely manner.

Genetic information: who owns it?

The controversy over who owns the rights to patients' data is growing as genetic testing becomes easier and cheaper. Should it remain in the hands of the patients or should companies be able to protect their trade secrets?

A paper by Christi J Guerrini, published in *Science*, proposes compromise on both sides. This follows a 2016 complaint filed by four individuals for whom Myriad Genetics performed genetic testing. They became frustrated by Myriad's refusal to make its database publicly available when they sought to access and share their personal data. As a result, the US Supreme Court invalidated Myriad Genetics' patents on BRCA1/2 genetic variants, which increase the risk of female breast and ovarian cancer.

Guerrini suggests legislation could allow the innovators of new diagnostics a period in which no copycat tests could be approved. This would give companies time to recoup their investments without hindering the public good that comes from accessing data related to disease.

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Rare and deadly melanomas not caused by the sun: new finding

Each year in Australia, up to 420 people are diagnosed with acral or mucosal melanomas. These rare and deadly forms of melanoma are not caused by sun exposure, new genetic research reveals.

Published in *Nature*, the genetic study involved researchers from 20 institutions around the world and was led by researchers at the University of Sydney, Melanoma Institute Australia and QIMR Berghofer Medical Research Institute as part of the Australian Melanoma Genome Project.

Acral melanomas affect people of all ethnic backgrounds and are the most common forms of melanoma in people with very dark skin. They often behave more aggressively, are harder to diagnose and have poorer outcomes than the more common UV-caused skin melanomas.

"This is a world-leading genetic analysis of melanoma," said cancer geneticist and senior author Professor Graham Mann.

"We are working hard now to turn these discoveries about the uniqueness of acral and mucosal melanoma into better results for melanoma patients," said Professor Mann Chairs the University of Sydney's Cancer Research Network and Melanoma Institute Australia's Research Committee.

WannaCry attack reveals vulnerability and resilience

The WannaCry cyber attacks that spread across 150 countries reveal both the vulnerabilities and resilience of most existing computer systems, according to Rebecca Slayton, Assistant Professor at Cornell University's Science and Technology Studies Department.

Slayton said, "The largest ransomware attack in history reveals both vulnerabilities and resilience. It is a sober reminder that it only takes one mistaken click to compromise an entire organisation; that computer systems, like all infrastructures, become unreliable without constant maintenance; and that human lives often depend on the reliable functioning of computers.

"On the other hand," she said, "we also see signs of resilience.

"Hundreds of thousands of computers were compromised, but vastly more were protected by automated patching programs; many systems were restored from backups; doctors resorted to pen and paper as necessary; and no human lives were lost — yet," Slayton said.

"Nonetheless, the fact that the attack was a rip-off from the National Security Agency suggests the need to put resources into developing resilience rather than focusing on devising new cyber attacks. What comes around goes around."

Bedside menu ordering system increases energy and protein intake in adult hospital patients

Electronic bedside spoken menu ordering systems (BMOS) have the potential to improve patient nutritional intake in an acute setting through a patient-centred approach to care and use of technology.This study aimed to assess the impact of a change in foodservice model from a traditional paper-based method to a BMOS ordering system on nutritional intake (protein and energy).

Data from 85 patients in a tertiary public hospital in Brisbane found significant increases in intake as a percentage of requirements with BMOS versus TM in both energy (81% versus 60%; p=0.001) and protein (107% versus 58%; (z=5.51, p=0.000, r=0.59) intake.

Year-round flu vaccinations promote healthier infants in subtropics

Vaccinating pregnant mothers year-round against flu in the developing region of subtropical Nepal reduced infant flu virus infection rates by an average of 30%, increased birth weights by 15% and resulted in babies having less influenza, according to a study published in *The Lancet Infectious Diseases*. The study suggests expanding year-round flu vaccinations during pregnancy would also benefit children in other tropical and subtropical parts of the world.

"The development of a child inside the mother affects that child its entire life, and low birth weight has lifelong health implications for a child," said Mark Steinhoff, MD, corresponding author on the study and director of the Global Health Center at Cincinnati Children's Hospital Medical Center. "The overall positive effect of performing these vaccinations — which is not expensive — is quite significant."

Multiple medications linked with hospitalisation

A recent study linking polypharmacy with an increased risk of hospitalisation was conducted by a multidisciplinary team from Monash University's Centre for Medicine Use and Safety and Resthaven residential services.

The research, conducted across six residential aged care facilities, set out to investigate whether there was an association between patients taking nine or more regular medications and admission to hospital. It investigated residents' time to first hospitalisation, the number of hospitalisations and the number of days spent in hospital over a 12-month period.

Residents who took nine or more medications were found to have an 89% higher risk of hospitalisation than those who took less than nine medications. This research has important implications for aged care and hospitals alike.

The research adds to the increasing body of evidence that suggests deprescribing may be a valuable way to reduce unwanted, expensive hospital stays.

Clinician or patient: it's all about the experience

UX is here

If you are a hospital or health organisation clinician, consumer or advocate, you may have heard about the groundswell of interest in UX (user experience) and the impact on the daily delivery of healthcare.

Concerns are frequently expressed by both clinicians and consumers around the usability and safety of technology in healthcare.

The whole issue of good usability of IT systems extends far beyond health records into any software used in healthcare — from smart pumps to apps to clinical decision support systems.

Poor systems perpetuate inefficiency, undermine take-up and adoption and detract from the real outcome: a better health system for all Australians.

In response to demand, the Health Informatics Society of Australia (HISA) has launched a community of practice for those interested in exploring and learning about health user experience (UX) and has been overwhelmed with the level of interest.

To open the topic to as broad an audience as possible, a special one-day UX conference has been incorporated in the annual HISA conference program, HIC 2017. It will take place on Sunday, 6 August in Brisbane, the day before the main conference gets underway. Registrations are open for the one-day event, or you can attend the whole HIC conference.

Community of practice member and UX strategist Bernard Schokan said, "UX is important for healthcare because we're talking about human beings in pain and discomfort,

"We can provide better, faster experiences that efficiently and empathetically move people across these spaces — but we're not.

"Presently, there is clear evidence that despite huge investments by government and service providers, real-world health systems have failed to deliver the improvements expected."

Schokan will lead a masterclass at the UX conference, taking attendees through a 'discovery' phase and creating a 'digital hUman eXperience' for carers/patients newly diagnosed with dementia.

"The whole issue of good usability of IT systems extends far beyond health records into any software used in healthcare."

UX strategist Bernard Schokan.

About the HISA Community of Practice

"All clinicians and healthcare professionals share something in common with their patients — navigating the health system can be a tough slog," HISA CEO Dr Louise Schaper said.

"High on the list for HISA's UX Community of Practice is raising awareness about this wicked problem — improving the clinician and patient user experience across healthcare settings with all the challenges that presents.

"When clinicians get involved in co-designing systems, we are on the right path for a great healthcare experience," Dr Schaper said.

The community of practice is led by UX expert Associate Professor Chris Bain, from Mercy Health — a clinician and Monash University research leader acknowledged as an Australian leader in UX.

He is joined by Matiu Bush, one of several design integration leads for RSL Care and RDNS, working to transform community and residential care for older Australians through human-centred design.

Also on the community of practice leadership group are Dr Louise Teo, founder of The Medical Startup website; UX strategist Bernard Schokman; Dr Anne Miller, from eHealth NSW; and Pamela Scicluna, executive director of Kianza, a health technology company.

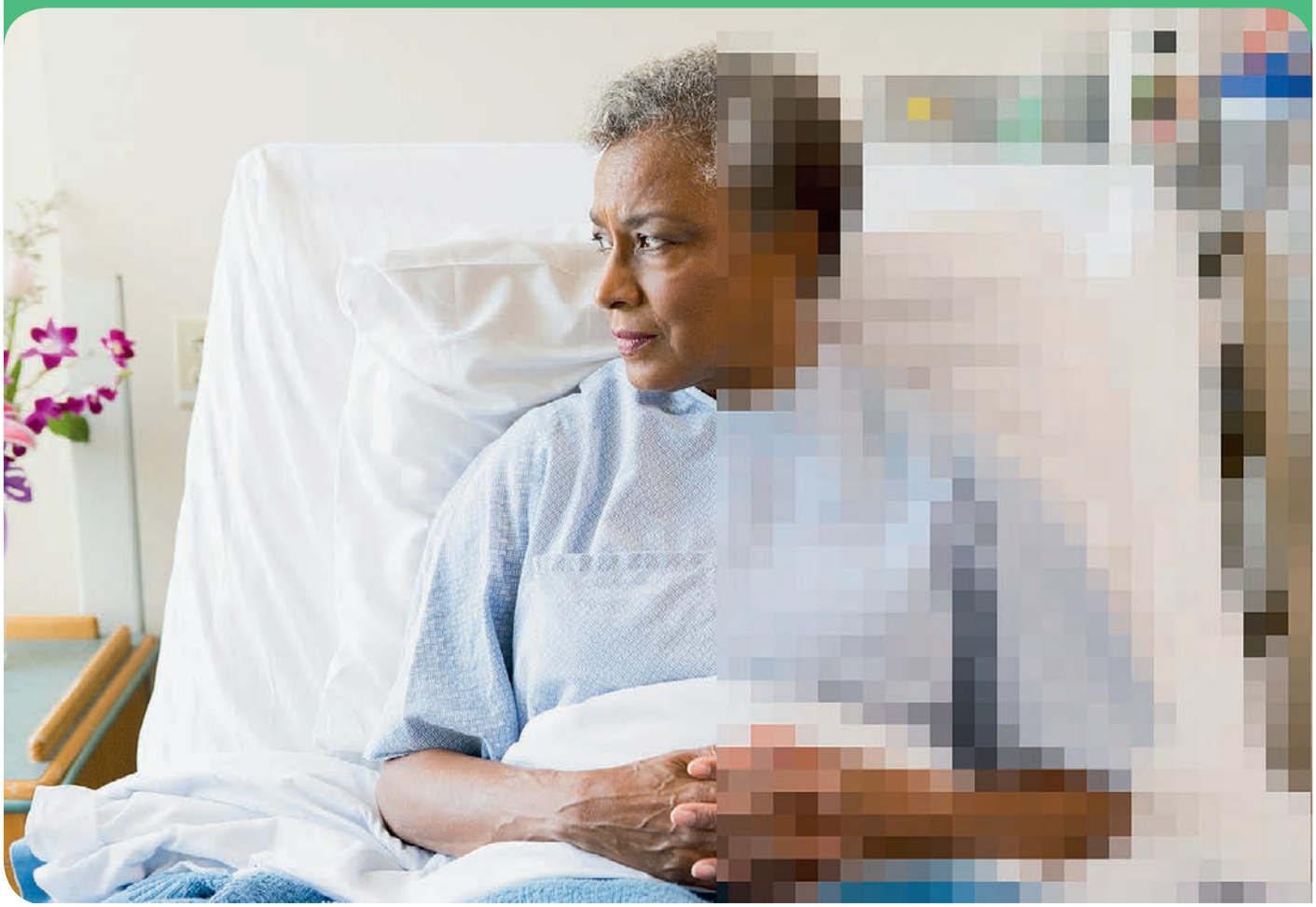
Associate Professor Bain said, "We'd all be in a much better place if systems were more usable and clinicians had a positive experience of health IT.

"While clinicians can sometimes be poor at communicating the exact problem to which IT is a possible solution, in no small part it is the role of informaticians and other relevant professionals to glean this information.

"Not providing specifics, however, can lead to ambiguity and frustration, and root problems can remain unsolved. A key purpose of the UX Community of Practice conference in August will be to develop a better understanding of what UX is and what it's not, empower people and give them the knowledge and language to articulate their system problems, and to work with IT departments and vendors on collaborative solutions. This workshop is highly recommended for clinical, managerial and technical professionals as well as healthcare consumer representatives."

For more information on the HISA UX Community of Practice, please call the HISA office on (03) 9326 3311.

Are you only seeing half of your patient?



Clinical Content Strategy: Combining ECM and VNA to Deliver Complete Patient Records

To fully achieve meaningful use of electronic medical records (EMRs), healthcare providers must give their clinicians secure, real-time or near real-time access to their patients' complete medical records. To that end, healthcare providers must be able to easily access images. Doing so helps clinicians make better informed, more timely decisions – which, ultimately, improves the quality, safety and efficiency of care.

The real-world challenge, however, is aggregating all the relevant data – structured and unstructured data, such as the images, referrals and clinician notes captured across an enterprise's multiple departments and stored in an assortment of data repositories. Often, these various systems are not integrated, rendering them as 'silos of information' that require end-users to log into each individual system in order to access the data. The rapid adoption of mobile devices to capture patient data has added another layer of complexity. And the proliferation of different types of information – including DICOM content, JPEG images on smartphones, PDF documents, MPEG videos and paper-based documents – further taxes IT systems because they exist in incompatible forms. EMRs manage discreet data, but they cannot capture and manage all of the data flowing in and out of an enterprise.

Michael Gray, principal of Gray Consulting, offered a clinical content strategy to address these challenges. In his briefing 'Greater Patient and Provider Satisfaction with an Enterprise-Enabled Patient Record', Gray highlights how leading healthcare organisations are implementing a strategy that focuses on a data management solution to both manage and provide access to unstructured data by housing it in a secure repository and creating an infrastructure to better support a clinician's access to the patient's complete medical record.

EMR limitations

Today's EMRs lack the capability to manage large volumes of unstructured data. Nor do they have the ability to display this data, including medical imaging data – DICOM and non-DICOM images. As a result, clinicians must conduct individual searches to view structured data via multiple viewing applications, engaging in separate, lengthy sessions to view images from multiple systems that creates an inefficient and disruptive clinical workflow.

The biggest problem is the lack of a single enterprise data repository to simplify searches for all data, structured and unstructured. Currently, a vendor-neutral archive (VNA) manages medical images from PACS departments, non-PACS workstations and mobile devices, while an enterprise content management (ECM) system manages unstructured data, including reports, scanned documents, care summaries, lab results, prescriptions, etc. What we want is one system that combines those capabilities.

Future state technology? Not anymore!

The ideal technology is a single data management solution to manage all content in their native format, essentially serving as a single archive within a single software solution. Data flows across the enterprise from imaging departments, PACS and non-PACs workstations into this data management solution – uploading studies either as they're performed or immediately upon completion. Other data – including scanned documents associated with the studies as well as the electronic forms and care summaries generated by department and administrative staff – also flows into the solution during and/or after data reconciliation and quality control. For a meaningful impact on the quality and cost of care, clinicians would then have immediate access to all of this clinically significant information.

Hyland's OnBase ECM solution is a single data management solution that combines VNA and ECM functionality. The solution manages all content – unstructured and structured – so that authorised users may access complete medical records from any device, anytime, anywhere. With the OnBase ECM solution, clinicians no longer have to set up searches and wait for results. It automatically aggregates all of the available information related to a patient's episode.

By combining the functionality of a VNA and an ECM, OnBase creates a more efficient clinical workflow supporting more accurate, timely and patient-centered treatment. Ultimately, according to Gray, by providing clinicians with access to patients' completed medical record – the enterprise-enabled medical record – healthcare organisations drive greater patient and provider satisfaction.

Cybercriminals are targeting patient records — is your data vulnerable?

Andrew Martin, Vice President, Zerto APJ

Ransomware has been around for decades but is increasingly becoming more aggressive and frequent. Cybercriminals are getting smarter and more targeted with their attacks. Only recently we saw an outbreak of WannaCry that left a trail of destruction in its wake — particularly for hospitals and healthcare providers.

How does it work? The malware will lock your computer to prevent you from accessing data until you pay a ransom - usually demanding around US$300 worth of bitcoins which typically increases over time. The victim is then given a seven-day limit before the affected files are deleted.

Hospitals in the UK were the first and hardest hit by WannaCry, with up to 16 reporting their IT systems were affected. Hospitals are particularly vulnerable because they rely on up-to-date information from patient records - which means that the industry is more likely to pay a ransom rather than risk delays.

Hospitals can also be subject to attack because some legacy applications such as patient or pharmacy systems will be running on old versions of Windows OS like XP. If the application is dependent on an old OS, the threat vulnerability becomes difficult to patch. This makes the need for recovery solutions even more important in these cases.

No IT security system is 100 percent safe. As these ongoing ransomware attacks continue to prove, having good IT security is only half the story. It's how fast you recover from these attacks that count. If it takes several days to find data or in this case patient records, the impact on both hospitals and patients can be devastating.

Hospitals can also make for bigger targets, because the more complex the IT and business environment, the more spread out the platforms on which IT systems sit, the more staff members, the more ways cybercriminals can find to infiltrate the business.

The best strategy is to implement a security solution and use a disaster recovery (DR) solution with 'Point-In-Time' recovery that can wind back and access data right up until the time of the security breach.

Minimising the damage

Security strategies and products that provide protection against ransomware are vital. Working with IT security vendors to ensure the right solutions and systems are in place should be the first point of call.

Most importantly, hospitals need to know how to minimise the damage when they do get hit, making sure they can be back up and running as soon as possible. A comprehensive approach, particularly in the fight against ransomware, involves considering IT security as a three-legged stool; the detection of attacks, prevention of intrusion, and fast recovery of critical data and applications to ensure uninterrupted business operations.

This combination ensures hospitals are prepared and not just three steps ahead of malicious intent, but building IT resilience that allows the business to thrive in the face of attack.

Conduct a regular risk assessment

To protect ourselves against ransomware, we have to understand what's needed to shield IT from the initial infection and how to recover as quickly as possible. Part of a well-rounded IT and security investment strategy involves identifying on a regular basis the key applications and data that is at risk and making sure they are protected.

The IT landscape is more dynamic and unpredictable than ever before. To keep pace, a disaster recovery plan must be easily implemented, and regularly tested with consistent success in order to prove its worth. The DR infrastructure must also be able to accommodate any changes in the IT environment over time, to protect against new holes and vulnerabilities created by IT updates.

The question is no longer if we are going to get hit, it's when. And how well are you equipped to handle it? Paying a ransom to retrieve your data should never be the answer, and there is no guarantee that an encryption key will be provided.

With so many tools and solutions available, there is no excuse for not protecting your data. So how prepared is your hospital to cope with the next attack?

My Health Record expansion set to reduce pressure on hospitals

The government's investment in expanding the My Health Record and shifting to an opt-out participation model by the end of 2018 will accelerate its benefits for clinicians and patients, says Meredith Makeham*, Chief Medical Adviser of the Australian Digital Health Agency.

The adoption of digital health services and technologies is a driver for transformational change in the way Australians approach their health and care. It has the potential to significantly improve patient health outcomes, improve the safety of our systems for people, and improve both the patient and clinician experience in their interactions with healthcare services. In hospital settings, we are seeing a revolution in the way health information is shared, stored and utilised, and My Health Record will play an increasingly big role in this transformation in the future.

Uptake of the My Health Record system among private and public hospitals is proceeding well and has seen a large increase over the past year. In Queensland every public hospital has now signed up to the scheme, while more than 90% of hospitals in NSW and the Northern Territory have also come on board. The number of people with access to the system has also grown substantially, with over 4.8 million Australians now having a My Health Record.

"In hospital settings, we are seeing a revolution in the way health information is shared, stored and utilised, and My Health Record will play an increasingly big role in this transformation in the future."

With significant investment and a commitment from the Australian Government to expand the My Health Record system by shifting to an 'opt-out' participation model, we expect that every Australian will have a My Health Record by the end of 2018, unless they choose not to have one. The benefits that this will bring in supporting a patient-centric approach and bridging some of our existing silos in the healthcare sector will deliver significant advantages to people around the country in their encounters with our hospital and other health systems.

The Australian Digital Health Agency is also working hard to ensure Australians will have a range of clinical documents and other sources of health information within their My Health Record to support their health and care needs, including community pharmacy records, hospital discharge summaries, and public and private pathology and diagnostic imaging results. In addition, the number of shared health summaries from GPs in the system is rapidly increasing, supported by the Practice Incentive Payments scheme for accredited general practices, with one in 10 My Health Records now having these included. A mobile gateway has also been added, which means that people can access their health information whenever and wherever they need it and on the same device that they use for health-related apps. There are also a number of features that allow people to put their own health information into the system, including advance care planning documents and consumer-entered health notes.

There are numerous benefits for people and health systems related to the My Health Record system, across areas such as access to information, improved safety and health outcomes, and cost savings. A number of these are likely to be realised as an effect of the sharing of pathology results and reports. Recently we have seen the commencement of uploads in two hospitals in NSW, and this will continue with private providers and other jurisdictions across the country. The My Health Record provides clinicians with the ability to view a patient's existing investigations, reducing the need for the duplication of testing. It is estimated that sharing this type of test information electronically will reduce unnecessary test duplication by approximately 18%, resulting in substantial savings to be realised within the hospital sector.

The cost savings associated with the My Health Record system are also likely to result in reduced hospital admissions thanks to improved care coordination and fewer medication related errors. We know that there are approximately 230,000 hospital admissions every year due to adverse medication events that cost 'the system' as much as $1.2 billion. Capturing and sharing a patient's medication history via My Health Record will help reduce these adverse medication events and help clinicians make informed decisions when faced with patients in emergency situations.

At the Australian Digital Health Agency, our vision for the future is a world-leading digital health capability that improves health outcomes for all Australians by supporting the efficient delivery of high-quality healthcare. There is a lot more work to do to continue to build and strengthen the system but, through ongoing consultation and co-design, we are excited about the potential of My Health Record to improve health outcomes and patient safety, as well as to reduce pressure on hospitals around the country.

*Clinical Professor Meredith Makeham is the Chief Medical Adviser of the Australian Digital Health Agency, where she leads initiatives to build the evidence base guiding the agency's workplan and future priorities. She is also a general practitioner in Sydney, with a research interest in patient safety in digital health and primary care. Professor Makeham has been involved in the clinical safety oversight of the My Health Record system since it commenced operation and is a strong advocate of people having access to their own health information.

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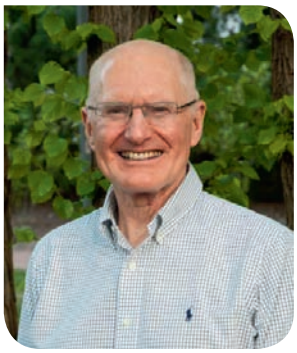
Critical applications and personal health records are the lifeblood of healthcare organisations. Any amount of downtime – losing access to those documents and applications— can have a devastating effect on the business and overall level of care. Zerto Virtual Replication provides peace of mind with a simple, cost-effective solution that allows continuous access to lifesaving information— enabling healthcare organisations to cut costs, meet rigorous compliance requirements and maintain optimal levels of care.

EXPERIENCE UNINTERRUPTED CARE

IHEA Healthcare Facilities Management Conference

The Institute of Healthcare Engineering, Australia (IHEA) are pleased to invite you to the IHEA Healthcare Facilities Management Conference (HFMC 2017), to be held on 11-13 October 2017 at Pullman Melbourne Albert Park.

Dr Louise Mahler & Professor David Hood



The Institute of Healthcare Engineering, Australia (IHEA), is the relevant professional organisation for engineers and engineering facility managers employed in the private and public healthcare sectors, from the smallest to the largest facility, as well as consultants engaged in related work. This includes Hospital Engineers, Health Facility Managers, Architects, Consulting Engineers, Builders and Contractors in the healthcare field, and all those engaged in Healthcare Facilities Management.

Members have the opportunity to network with other professionals, share practical experiences and gain access to information on developing technologies. Eligibility for different membership levels depends on the applicant's qualifications and relevant experience, from apprenticeship through to postgraduate degree.

This year's theme is *Compliance in Motion* and aims to give the participants an overview of how Health Services manage compliance. With the role of Healthcare Facility Manager transitioning from technically focused to strategic and operational performance driven, there is additional pressure and responsibility to enhance Compliance Management and actively participate in the continual improvement of processes related to infrastructure management. The mission of facility managers is to embrace a culture of excellence and address Compliance Management with professional pride. Effectively, we become a change agent and a driver for quality in the built environment.

Conference topics will include:

- Health and Human Services building design requirements.
- Building Code of Australia, including occupancy certificates, essential services, and statutory and regulatory maintenance.
- Health Service compliance, including OH&S, Infection control, waste and pollution, and energy management.

The conference program will feature:

- Optional Masterclass Workshop
- Various Technical Site Tours
- 2 Full Days of Conference Sessions
- Trade Night
- Conference Dinner
- Keynote Addresses from Dr Louise Mahler & Professor David Hood

REGISTER NOW via the conference website or for further information: www.HFMC2017.org.au

For enquiries, please contact the conference organisers, Iceberg Events, on +61 7 3876 4988 or bella@icebergevents.com.au

We look forward to seeing you in Melbourne!

Certified Health Care Facility Manager

The IHEA offers a CHCFM certification program to promote healthcare facility management through the certification of qualified individuals by:

- Recognising formally those individuals who meet the eligibility requirements of the IHEA CHCFM program.
- Encouraging continued personal and professional growth in the practice of healthcare facility management.
- Providing a system to support continuing professional education as a requirement for certification; thereby assisting employers, the public and members of the health professions in the assessment of a healthcare facility manager.

Initial Certification for eligible members:

The certification program will run over a two year period requiring the attending of a minimum of 60 hours of approved CPD points (consistent with Engineers Australia CPD points). Further, after consultation with the CHCFM Selection Committee, a 3000 word written paper on a project or topic of their choosing that directly relates to a current activity within their own organisation must be submitted for assessment. The paper will be assessed for originality, accuracy, professionalism and facility management or engineering principles. Certification will be valid for three years. The submitted paper is to comply with the IHEA "Guidelines for Authors Technical Papers, Case Studies and Conference Papers".

The IHEA provides a range of professional development opportunities for members. Conferences are offered on a national and state level and are available to both members and interested parties. These conferences are designed to keep those attending up to date with relevant issues within our industry. Professional development seminars are available at a branch level in each state and a social function is held at the end of the year. We welcome all those that have a stake in healthcare engineering and health infrastructure management to participate with us in providing innovative and sustainable solutions for a better healthcare facility.

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For more information visit **www.HFMC2017.org.au**

EHRs in the hands of clinicians at Portland District Health

Portland District Health, Victoria, is leading the pack in clinical informatics technology, with close to 95% conversion to electronic health records (EHRs). CEO Christine Giles* says "paper is no longer an option" and explains why EHRs should stay in the hands of clinicians, not administrators.

Good communication is vitally important to the health and wellbeing of patients who present to remote, rural and regional health services. Arguably, the more rural or remote, the more important this is. Having instant access to a patient's clinical health records means the patient receives the definite care they need, more quickly.

“At Portland District Health, we have made a conscious decision to move from being late adopters of clinical informatics technology to being a leader.”

The public rural health sector in Australia is the front door to the wider system. Many rural patients will move from the front door through to the tertiary sector and back. Without seamless clinical communication, the risks related to multiple patient handoffs rises dramatically.

The current health indicators in Australia clearly show a widening gap between the burden of disease in rural areas compared to metropolitan centres, yet the rural sector is often at the end of the technology rollout cycle.

At Portland District Health, we have made a conscious decision to move from being late adopters of clinical informatics technology to being a leader. Currently we have across our integrated health services around a 95% implementation of an EHR system which includes acute health, medication management and the primary, community sector.

Portland is part of a larger picture that sees the whole of the south-west corner of Victoria in the process of implementing an integrated EHR system. If a patient presents at Portland and needs to transfer to Warrnambool, the clinical team can see the full clinical record of the patient prior to transfer and vice versa, markedly decreasing the likelihood of miscommunication.

As the CEO at Portland District Health, it has been vital to actively lead and manage our electronic health journey. Moving back to paper is no longer an option. We currently have clinical staff at Portland who have never seen a paper drug chart and are using the electronic medication management platform, with all the built-in safety features, very effectively.

For management, it is extremely important to step out of the arena of owning the clinical EHR. To implement it effectively, it must be owned by the clinicians.

In the past, health has focused on building systems to meet management’s need for data. The development of the EHR puts the right information in the right place at the right time for the clinical team. Once the clinicians have the system designed for their needs, management can then look at how it can extract data to inform the quality and safety of the system.

The EHR is as vital to the clinical now as the stethoscope was and is. Management does not get involved in the look and feel of the stethoscope and should not influence how the EHR provides clinical decision support for clinicians.

*Christine Giles is the CEO of Portland District Health in South West Victoria, where she admits she is also known as “Gadget Girl”. She says Portland District Health is a digital organisation leading the way in providing the right information in the right place at the right time to ensure safe and high-quality patient care. Christine is recognised as a strong advocate and early adopter of technologies that change the way patients work collaboratively with clinicians to improve their health and wellbeing and enjoy the best quality of life they can. She is one of the opening speakers at the Nursing Informatics Australia (NIA) Conference on Sunday, 6 August in Brisbane, at the start of the annual Health Informatics Society Australia conference which runs till 9 August.

Putting patients at ease with smart and effective technology

If you find yourself in the emergency room as a patient, things have probably not gone your way in recent times. Chances are you would prefer to be anywhere else and so when it comes time to be admitted, the more effortless that process is, the better. This is where the Brother TD-2000 series label printers can assist in patient care, by streamlining admissions — especially when it comes to Patient ID printing. In addition to speed, it also allows for higher reliability and can improve patient safety by utilising smarter and safer patient ID techniques and barcode medical administration system integration.

The TD-2000 series uses barcode point of care technology for real-time verification of crucial information like patient details, what medication they require and dosage as well as time and route. It can also provide automated alerts to caregivers in order to eliminate potential harmful errors before they occur, helping to protect patients, provide peace of mind for clinicians, and maintain compliance with important patient safety regulations.

With connectivity options that include mobile devices and configurations that include Lithium Ion rechargeable batteries, staff can work in virtually any area of a hospital. Its transportable, wireless format empowers clinicians to administer care directly where it's needed most — with the patient — at almost any point of care location whether from a workstation in admissions to a cart at patient bedside, and everywhere in between.

The Brother TD-2000 series excels as the backbone of any patient ID system. It is, after all, a label printer and can be used with a wide range of label types and uses in hospitals and other healthcare arenas. Labelling is an important part of the information communication process outside of patient ID wristbands. It can also be relied upon for labelling medication dosage, giving patients instructions for prescriptions, patient or creating fast and accurate labels when preparing medical samples to be sent away to the laboratory for analysis. These need to be reliable and accurate as making a mistake can be extremely costly and inefficient. A simple error of incorrect printing and labelling just won't do as it can literally mean the difference between life and death.

The Cerner Certified Brother TD-2120N is a perfect match for the healthcare industry as it is a robust and versatile solution that is highly customisable. It can be used as a desktop labeller, connected directly into a PC or it can be configured to be portable using the optional Lithium Ion battery attachment. Brother understands that every healthcare professional is different and that the needs of an environment can change over time. With the demands placed on the care professionals, versatile and mobile tools are essential in maintaining accuracy with maximum efficiency.

Customisable to meet your labelling & record printing needs

As every healthcare professional has different needs, there are numerous optional extras available which allows for you to pick and choose in creating the TD to your unique requirement. TD-2120N series has been created to be modular so depending on the needs of the user, it can be customised to fulfil a specific function and can easily be reconfigured as a business changes over time, making it more cost efficient. It can act as a PC connected label printer, transform into a mobile printer, go wireless via Bluetooth or Wi-Fi or even include an LCD screen to remove the need of a computer or mobile device altogether.

Brother has a dedicated Corporate Solutions Team whose sole purpose is to work with companies to discuss complete technology packages tailored to the specific needs of a workspace. Headed by Luke Howard, Brother International Australia's Commercial Market Development Channel Manager, the team is dedicated to delivering top of the range products and solutions to assist customers in meeting their evolving business needs. Working with the team, you can find the best configuration of the TD-2120N for your business and create a solution that incorporates other Brother technologies and services to bring down the cost of ownership, maintenance and initial deployment.

brother
at your side

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For more information, contact the Brother Commercial Division on:
Phone: **1300 885 989** | Email: **corporatesales@brother.com.au**
Website: **http://corpsolutions.brother.com.au**

Digital health events target nurses, midwives, hospital clinicians

Nurses, midwives, hospital clinicians and healthcare professionals are invited to connect and learn from some of the country's most forward-thinking digital health experts when the Health Informatics Society of Australia holds its annual conference HIC 2017 in Brisbane in August.

HISA is the peak body for Australia's digital health professionals, from clinicians to health ICT, innovators, entrepreneurs and the healthcare C-suite.

This year's HIC will be held 6–9 August at the Brisbane Convention and Exhibition Centre with a packed program of national and international speakers, workshops and masterclasses. Last year the event attracted more than 1,200 delegates from across Australia, with more than 100 scientific and clinical research papers as well as industry case studies.

One of the new delegate attractions this year is a special User Experience (UX) mini-conference featuring Australian leaders in patient and clinician user experience including Matiu Bush who is the Design Integration Lead for RSL Care and the RDNS. Two of the expert masterclasses "Hands On UX" are led by Bernard Schokman, UX Strategist (BernardSchokman.com and UXMoshpit.com).

HIC 2017 also features a dedicated nursing informatics mini-conference with a special forum for Nursing Informatics Australia (NIA), which is a special interest group of HISA.

Nursing forum speakers include Christine Giles, the CEO of Portland District Health, Cheryl McCullagh, Director of Clinical Integration at the Sydney Children's Hospitals Network, and Luke Hutley, from Trend Care Systems. The forum also features Suki Loe, Nurse Director at Fiona Stanley Fremantle Hospitals Group, in WA Health. Stefanie Schormuller and Meredith Faggotter, from the Sydney Children's Hospital Network, will present on "Nursing and the eMR: Working to prevent change fatigue."

Nurses and midwives who would like to get involved in nursing informatics beyond the conference are invited to become members of HISA and join the special interest group. Join before the event to receive a member's discount.

HISA CEO Dr Louise Schaper said: "This HISA special interest group is a good reference point to learn about the developments

Matiu Bush

in Nursing Informatics both nationally and internationally. Over the last decade the healthcare environment has seen a transformation of work practices and an explosion in the use of information and communication technologies."

HISA
AUSTRALIA'S DIGITAL HEALTH COMMUNITY

» For more information on HIC and the mini-conferences visit **www.hisa.org.au/hic/**

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hic

6 - 9 AUGUST 2017 BRISBANE

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36th IHHC National Conference

The Institute of Hospitality in HealthCare Ltd (IHHC) is pleased to invite you to Adelaide, South Australia, for the IHHC's 36th National Conference, 'Hospitality in Healthcare — A Global Experience'.

Adelaide is South Australia's cosmopolitan coastal capital. Surrounded by a ring of parklands and the River Torrens, it is home to renowned museums such as the Art Gallery of South Australia, displaying expansive collections including noted Indigenous art, and the South Australian Museum, devoted to natural history. The city's Adelaide Festival of Arts is an annual international arts gathering with spin-offs including the Fringe and a variety of other events.

Adelaide is also home to the new Royal Adelaide Hospital (nRAH), a state-of-the-art facility that has utilised the latest in architectural design to create a healing environment for patients and a positive working environment for staff. In part, this has been achieved by ensuring all rooms have access to natural light and easy access to internal gardens on balconies, roof gardens and internal courtyards. The nRAH has been designed to provide a world-class facility not just for today, but for the future.

Delegates at the 2017 Conference will not only have the opportunity of visiting the nRAH but also hearing from **Roz Hanson, Contract Manager, new RAH Spotless PPPs (Public Private Partnerships)**.

This year's conference takes on an international theme and includes presenters from the UK, Abu Dhabi, Hong Kong and New Zealand, as well as a number of leaders in the Australian Healthcare Industry.

A Taste of What's to Come

Caroline Lecko, Clinical Improvement Manager NHS Improvement, Nutrition and Hydration Associates Partner, United Kingdom, founder of the initiative "Protected Mealtimes" in the UK will present on her topic **"It's a complex business — improving nutrition and hydration"**.

This session will focus on the challenges that colleagues in the United Kingdom are tackling in their mission to improve the provision of nutrition and hydration across health and social care settings. The session will provide insight into how collaborative working across both the system and professions is striving to deliver improvements in patient experience and outcomes.

Hospitality in Healthcare — A Global Experience
15th – 18th October 2017
Hilton Adelaide
Adelaide, South Australia

Harriet Whiley

Dr. Harriet Whiley is lecturer in Environmental Health at Flinders University and course convener for the National Short Courses in Environmental Health: Risk Assessment and Management. **Harriet's presentation is "Emerging research aimed at reducing salmonellosis linked to eggs in Australia"**. The incidence of salmonellosis in Australia has been significantly increasing over the last decade with the majority of outbreaks linked to eggs. This includes a number of cases linked to hospitals and aged care facilities. This session will provide a brief overview of the current state of knowledge regarding Salmonella and eggs in Australia and why our situation differs from the UK and the rest of the world. Current research being done at Flinders University to address the gaps in knowledge will also be discussed. This will include issues surrounding storage temperature, handling techniques and the potential for onsite pasteurisation.

Girish Sehgal

Girish Sehgal has had a remarkable career spanning almost 20 years in the global hospitality industry working in the U.S.A., Bahamas, Canada, Maldives, India, and now in U.A.E., gaining in-depth exposure in luxury hospitality. He took up the role of CEO and MD of FASSCO (Food and Allied Support Services Corporation), enticed by FASSCO's vision of bringing high-end hospitality into healthcare. Currently, FASSCO manages the complete food experience at the regional landmark the 364-bed Cleveland Clinic Abu Dhabi hospital.

Stefan Tornau | Senior Director, Hospitality Service

Stefan is the Senior Director for Hospitality Services at Cleveland Clinic Abu Dhabi. He leads the planning and delivery of hospitality services, and the integration of non-medical and clinical services. He holds extensive operational and strategic knowledge, having worked in the hospitality and healthcare industries for 30 years.

Stefan is a driving force at Cleveland Clinic Abu Dhabi in creating outstanding patient experience and is responsible for implementing a hospitality culture at every touchpoint of the patient journey. Previously, Stefan was Assistant Executive Director at the Hamad Medical Corporation in Qatar, implementing hospitality services and transforming existing support services of eight hospitals with a total of 2,100 beds.

Girish and Stefan's topic **The Cleveland Clinic – Abu Dhabi: A 360 Degree Approach to Excellence** has in just two years of its opening completely re-defined the standards of soft and hard services in the operation department. We call ourselves proud "hospitality services" and our service excellence paralleling those of the top hotel chains in the world. We have used existing traditional hospital accreditations and added a validation, feedback and benchmarking to all the soft skills and hospitality touches.

Offering an extensive menu of both patient experience enhancers and clinically integrated support services, the CCAD hospitality services department has raised the bar for healthcare systems around the world to emulate.

As a testament to the delivery of these exceptional services we are the only Middle Eastern Hospital accredited from the London, Institute of Hospitality and got re-accredited in April 2017.

Trade and Exhibition Show

As an additional attraction, there will be an extensive Trade Show with over 30 companies displaying and offering advice on their latest products and services.

This is an exceptional opportunity to be involved in an event totally focused on issues relating to the effective running of all Health & Aged Care Support Service Departments.

If you are fortunate to be able to attend our conference you would be welcomed, not only by the IHHC National Board, but by our friendly network of members and supporters.

We look forward to seeing you in sunny Adelaide.

John Boland
National President IHHC Australia

IHHC
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Institute of Hospitality in HealthCare

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For more information and registrations visit **www.ihhc.org.au** or contact our secretariat on **admin@ihhc.org.au**, John Boland at **president@ihhc.org.au** or Kathy Manning at **k.manning@gchi.com.au**

Westmead's transformation

A major transformation is underway at Westmead in Sydney's west. An impressive new 12-storey acute services building, which will house two new emergency departments, is the showpiece of the Westmead Redevelopment.

Nearly 30 kilometres west of Sydney's CBD, in the fastest growing city of Australia — Parramatta — the Westmead health, education and research precinct is transforming.

Two major hospitals, Westmead Hospital and The Children's Hospital at Westmead, dominate the precinct providing tertiary and quaternary specialised services that support New South Wales and Australia. The precinct also includes a private hospital, three research institutes, multiple healthcare service providers and universities.

The NSW Government is investing over $900 million in the precinct, including a central acute services building which will open in 2020. The new structure will link the two major hospitals and will host a number of adult and paediatric services including emergency, pharmacy, imaging and state-of-the art operating suites. The new facilities and services will improve health outcomes and experiences for patients, carers and families.

Key features of the new building include two new emergency departments — one for adults and one for children — operating suites with highly specialised equipment, a new Cardiac Comprehensive Care Centre and expanded imaging, pharmacy and logistics. New landscaped areas and parking will improve accessibility and patient and visitor experiences.

There will be new, comfortable, modern patient rooms — a high proportion of these will be single rooms with dedicated carer zones, while the remainder will be double rooms. The architect, HDR Rice Daubney, is maximising natural light and views of the region, including outlooks to the Sydney CBD and Parramatta. Adult patients, carers and visitors will be able to relax and reflect in patient lounges. Children will have access to play areas, while a carer's retreat will provide additional respite.

Community members have been embedded in all stages of planning for the new hospital

Main entrance to the acute services building, looking towards the Innovation Centre. (Artist's impression)

"The NSW Government is investing over $900 million in the precinct, including a central acute services building which will open in 2020."

Artist's impression

building, including participating in design workshops, reviewing floor plans, healthcare service discussions and testing simulation spaces. Consumers have also been involved in planning for information and computer technology as part of the transformation to a digital hospital. Several opportunities for community participation are coming up, including an arts and cultural program for the new building and a way-finding project to improve navigation and signage in and around the precinct.

Westmead's education, training and research capacity is also expanding. A major upgrade to the hospital's key learning spaces, the Westmead Education and Conference Centre, will be completed before the year ends. This is part of a commitment from The University of Sydney to invest $500 million over the next 15 years. This investment includes two floors in the new central acute services building that will enable greater integration of education, research and health services.

The revitalisation is not restricted to the renovation or construction of new facilities. The Western Sydney Local Health District is also taking the opportunity to review a wide range of elements of the business, including patient care and patient flow.

"The colocation of staff and patients from two of Sydney's major hospitals is complex and requires major pieces of work, including workforce planning, ICT systems and reviews of healthcare service delivery and referral pathways," said Leena Singh, Westmead Redevelopment lead for Western Sydney Local Health District.

"With under three years to go until the new building opens, our work is now shifting to the transition and operational planning to prepare for the move in 2020. Westmead is cementing its reputation as a vibrant, innovative centre of healthcare."

Read more: www.westmeadproject.health.nsw.gov.au.

Hospital Boulevard next to the acute services building. (Artist's impression)

HDR Delivering an Integrated Healthcare Precinct for Westmead

HDR design and deliver more health, research and training facilities than any other architectural firm in the world.

They are recognised globally for creating patient-focused environments of wellness with optimum clinical efficiencies. With more than 9,500 design professionals employed in over 200 locations across the world, HDR's depth of experience and wealth of knowledge ensure they are at the forefront of cutting-edge design and thinking. They are consistently ranked highly on International Design Rankings, including Number 1 for Healthcare Design on the Building Design "World Architecture 100" in 2016.

The Sydney studio is known and lauded for designing some of Australia's leading health and education facilities including the Sunshine Coast University Hospital, Liverpool Hospital, the multi-award winning Chris O'Brien Lifehouse and, currently, the Westmead Health Precinct Redevelopment.

Westmead Precinct

The Westmead region has developed significantly over time and evolved into an innovative, contemporary and integrated healthcare Precinct with one of the largest concentrations of biomedical, scientific and healthcare focused minds in Australia. As Principal Architects on the entire Westmead Precinct Redevelopment project, HDR have played a major role in transforming the Westmead campus through providing masterplanning, architectural design and clinical planning services. HDR are currently completing the Design Development and Early Contractor Involvement (ECI) Phase of Stage 1 which sees a capital investment of over $900 million in new hospital buildings, infrastructure, car parking and refurbishment works.

HDR are working with the Westmead Precinct Partners to create a vision for Westmead as a workable, liveable and accessible health city focused on integrated healthcare, teaching and research. It will promote patient, carer and staff wellbeing and community engagement, while also attracting staff, students, residents, researchers and visitors from across the globe. The Westmead Precinct Partners who make up the site include: four major hospitals – The Children's Hospital at Westmead (CHW), the Westmead Hospital (WH), Cumberland Hospital and Westmead Private Hospital; three research facilities – Westmead Research Hub, Children's Medical Research Institute, and the Westmead Institute for Medical Research; two major universities – Western Sydney University and The University of Sydney Clinical Schools; Ronald McDonald House at Westmead; and Pathology West – ICPMR Westmead.

Ronald Hicks, HDR Director of Health Australia, said: "We are delighted to be working with the Westmead Precinct Partners to create a global centre of excellence for healthcare, education and research, and improved healthcare facilities for the Western Sydney community."

Masterplanning

HDR have undertaken several masterplan studies that have gone on to inform the growth and transformation of the Westmead Precinct. In late 2015, together with MSJ Architects and Johnstaff Projects, HDR undertook a masterplan study for the CHW which set the framework for the growth of children's services in the Westmead Precinct as well as opportunities for integration and development of synergies between the Precinct Partners. The end result supported the development of an integrated services zone by co-locating selected shared services within a new Central Acute Services Building (CASB). This offered the potential to improve patient outcomes through increased sharing of staff and services and greater levels of collaboration across the Precinct.

The masterplan also accounted for the potential need for major infrastructure and urban expansion for public transport with the announcement of a new public light rail link. Due to extend from Westmead Train Station along Hawkesbury Road and Hainsworth Street through Parramatta Parklands, the announcement raised concerns that this could impact on the management of patient flows into the hospital. In response, the masterplan improved patient access to services within the Precinct by providing distinct and dedicated entry points, including a specific Ambulance entrance. A new Emergency Precinct that co-located and encouraged sharing of services between Precinct Partners, and a new CHW Clinical Services Building was also included.

The masterplan supported CHW in retaining its focus on the health of children, strengthened integration and collaboration between the CHW, WH, and with other Precinct Partners, and set a framework for the design of a Precinct that will become one of the largest health, education and research centres in the world.

Architectural Design

HDR have now completed Schematic Design and are currently undertaking Design Development for Stage 1 of the Westmead Redevelopment project, the main elements of which are CASB Stage 1, the Innovation Centre, and the new landscaped Entry Plaza. Stage 1 is central to the Westmead Precinct as it enables and facilitates optimised integration between CHW, WH and Education, Training and Research (ETR) activities. Responding to the progressive creation and sprawling nature of the existing Precinct, the architectural intent for the Westmead Redevelopment is the creation of a more highly integrated Precinct with respect to both the practical utility, and the visual impact of new works. The quality of the design for the newly created buildings – the CASB, Innovation Centre and Plaza development - will express the significance and importance of the Westmead campus as a landmark, world-class health precinct. At the same time, it will support the ongoing mission for the Westmead Precinct to deliver healthcare of the highest quality while remaining accessible and responsive to its local community.

Central Acute Services Building (CASB)

Born from the masterplan mentioned above, CASB is located between the existing WH and the CHW to optimise precinct integration and offer synergy opportunities for sharing of high-end acute clinical services, equipment and other resources. The CASB is a 13-storey vertically stacked podium and tower solution that provides physical linkages between the two facilities. It includes two new emergency departments, satellite and acute medical imaging services, a new day surgery unit and operating/interventional suite, central sterilising services department, pharmacy satellite, cardiac comprehensive care centre, surgical integrated practice units, University of Sydney ETR area, and a helipad. Shelled spaces on several levels will enable non-disruptive and logical future expansion – a key driver in the development of the design concept.

The Innovation Centre

The Innovation Centre is an identity building at the heart of the Precinct, designed to support multi-disciplinary approaches to solving complex healthcare and associated problems and to provide the opportunity for a future biobank repository and expanded ETR activities. With a highly flexible and adaptable plan, the centre will be an environment that stimulates research and development, promotes interaction and knowledge sharing, and fosters creative and strategic thinking. The design has been inspired and informed by Yerrenin – an indigenous term for meeting. It is designed to encourage collaboration, including "bump spaces" where staff naturally interact and share ideas through the day, exhibition space, large meeting environments, social spaces and a New Ways of Working space.

Entry Plaza

The new landscaped Entry Plaza will be a major public design urban gesture that will provide significant amenity for visitors, staff and the public to enjoy. Interfacing with redesigned public transport networks, the Plaza will act as both a pragmatic zone for drop-off and pedestrian egress to the main entries, and a calming zone with planting and seating for contemplation and reflection. Car parking spaces, both at-grade and underground, is also a major feature of the entry zone to the Precinct. The Plaza will provide a significant contribution to the urban landscape, improving the public domain by providing green space and a sense of 'place'. It will define the urban edge and create an identity entry to the Precinct.

The completed project will deliver clinical improvements, futureproofed planning, optimised opportunities for ETR, and improved service integration at the heart of the health campus. As some of the largest healthcare, education and research providers in Australia, the Westmead Precinct Partners are uniquely placed to create a global centre of excellence in integrated healthcare, research and clinical education.

HDR

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For more information visit **www.hdrinc.com.au** or **Tel:** 02 9956 2666

Redesigning clinical work spaces

Ronald Tabaksblat*

Drivers such as cost pressure in healthcare systems, together with advances in technology, rising patient volumes and demands from engaged patients in their own healthcare, are transforming the way care is delivered, creating a shift in what is required in clinical spaces.

These shifts are particularly evident in the image guided therapy space, with the number and complexity of minimally invasive procedures growing across the world.

The significant advances in technology enabling clinicians to do more with less are also strong drivers in workspace evolution. There is high demand to embrace evolving technologies from clinical performance, patient expectation and hospital competition perspectives. The way healthcare environments are being designed today is shifting to futureproof them for tomorrow.

Technology is influencing the way surgeons use their workspaces

Developing more intuitive systems that seamlessly integrate and enhance workflow efficiency is crucial, as complexity can be a significant barrier preventing physicians from using new technology. Easy-to-use systems have the potential to make image guided therapy simpler and faster, and improve both the patient and physician experience.

Improvements in image guided therapy technology allow for even less invasive procedures, fewer repeat procedures and

improved workflow. And new technology is enabling interventionalists with new image guided navigation tools at low radiation doses with improved image quality and reduced contrast requirements.

Think, for instance, of interventional oncology applications or transcatheter aortic valve replacement (TAVR) procedures that are imaging and navigation optimised.

Planning changes to existing infrastructure

Planning the physical space can prove to be challenging. Interventional rooms and operating theatres can quickly become crowded with users and specialised equipment. There is no 'one size fits all' solution.

When a hospital decides to make significant changes to the existing healthcare infrastructure it is important for them to consider the types of procedures that are taking place in each space, such as the workflow of the physicians that are performing the procedures and the patient experience in a specific room. For example, the placement of equipment such as lights or equipment racks could potentially be influenced by whether the primary physician working in the lab is left- or right-handed.

Introducing new technology

The key to making the right decisions followed by a successful install is the collaboration and clear communication between the hospital, the clinicians and support staff, and the technology provider.

We take a strategic approach according to a co-create methodology based on the latest healthcare design thinking to help hospitals create an innovative and optimised patient care environment.

The transformation process can be enabled through experience flow mapping, where we see teams create mock-ups of workspaces using cardboard boxes, or 3D planning software, and reach surprising conclusions about the design of operating theatres or interventional suites following the patient journey.

Dedicated planning and install teams ensure the usability and flow of a clinical space is fully considered for each and every hospital. In addition, the close collaboration between the hospital and the technology provider helps to ensure products are tailored to support workflow in and around the lab.

One example of a new platform that is changing the way surgeons use their workspace is an image guided therapy system for interventional labs. This is the result of a multiyear development program where hundreds of developers, engineers and designers worked in close collaboration with leading clinicians in the field across the world.

The system enables multiple work spots in one lab and features parallel working, which enables different tasks to be completed simultaneously, leading to faster exam turnover without compromising quality of care. This kind of new technology promotes cross-disciplinary collaboration and gives clinicians flexibility to view, control and manipulate applications, allowing them to switch seamlessly between procedures.

Who needs to be involved?

I feel that an immersive approach is best; multidisciplinary teams in the hospital working together to assure that clinical, as well as operational and financial requirements, are met. Active involvement should be sought from physicians, patients, healthcare management and other stakeholders to co-create and develop solutions that bring a total experience for the customer.

How can hospitals avoid costly mistakes?

When designing operating theatres, one needs to consider and optimise the way that staff will utilise the equipment. In the operating room (OR) environment for instance, a lot of equipment is ceiling mounted, which can lead to collisions or other unwanted interactions.

Another example is the placement of video cameras. Video is becoming more and more common in surgical and interventional suites. If the position of the cameras is not properly planned it may be possible that images get obscured by other equipment in the room. These mistakes can be easily avoided when taking the clinical workflow into consideration when designing an OR.

By enhancing the usability of equipment by staff, hospitals can enhance performance, reduce procedure time, see fewer repeat procedures, improve workflow and increase the standard of care delivered.

Philips Healthcare
www.philips.com.au

FAST FACTS

A myriad of trends is driving the evolution of clinical workspaces. Among others we are seeing:

- Tight budgets are pushing healthcare providers to seek efficiencies.
- An ageing population is causing a sharp rise in chronic conditions, which increases demand and drives complexity of procedures.
- Competition amongst hospitals is growing, as hospitals need to differentiate their services.
- Healthcare facilities are consolidating through mergers and acquisitions. These networks seek to leverage efficiencies and are driving standardisation of care across their facilities.
- Patient satisfaction metrics are becoming more and more important, and many care providers are strongly focused on improving the patient experience.

*Physicist Ronald Tabaksblat is Senior Vice President and Business Leader for IGT Systems at Philips. He leads a group of 1000+ employees in The Netherlands and India. He has also been responsible for leading Philips' diagnostic X-ray and cardiology informatics businesses.

MicrobeCare: Antimicrobial Solution for Herman Miller Healthcare Products

MicrobeCare™ is an antimicrobial treatment that effectively controls bacteria, fungi, algae, and yeast on a wide variety of Herman Miller products. It kills 99.99% of microbes and prevents microbe mutation. MicrobeCare is safe and has recorded proven results in highly sensitive healthcare environments.

What does it do?

MicrobeCare reduces the spread of infection on the materials and surfaces of our products, keeping them germ-free in public areas, waiting spaces, offices, and sensitive healthcare environments.

How does it do it?

- **Step 1**: Cell membranes (microbes) are attracted to treated surfaces and punctured.

- **Step 2**: Due to the positive and negative ion exchange, there is deep penetration into the core membrane.

- **Step 3**: Physical rupture of the cell and electrocution by positively charged nitrogen molecules destroys the cell.

Features

- Shown to kill 99.99% of microbes on treated surfaces
- Non-leaching
- Odourless
- Colourless
- Non-transferrable from surfaces
- Minimal degradation from cleaning agents
- Continuously active
- Environmentally safe
- At least 7 years active performance

Long Lasting

- Accelerated Life Testing suggests that MicrobeCare will last at least 7 years on your Herman Miller product. Chemical and rub testing was conducted and showed minimal impact on fabrics.

Quick Application

- MicrobeCare is applied to a complete assembly, protecting the entire product, and all surfaces. The entire process takes only a few minutes.

Cost Effective

- Adding MicrobeCare protection to a Herman Miller product is a low-cost way to enhance your infection prevention program. In most cases, MicrobeCare adds less than five to seven percent to the total cost.

Some exceptions apply — contact your Herman Miller representative for more information.

The active agent in MicrobeCare is unconditionally registered with the US Environmental Protection Agency (EPA) in accordance with FIFRA sec 3(c)(7)(A).

HermanMiller Healthcare

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For more information on MicrobeCare or any of Herman Miller's healthcare range, please contact **info_au@hermanmiller.com** or **visit www.hermanmiller.com.au**.

Florabella™

For patients and their families.

Florabella seating from Herman Miller Healthcare provides comfort and support for the patient or guest. Its innovative floating seat allows potential contaminates to flow to the floor for easy cleaning, and it comes with our peace-of-mind 12-year warranty.

+ Now with optional MicrobeCare™.

Herman Miller Healthcare's patented antimicrobial treatment provides added protection against bacteria, fungi, algae, and yeast. Environmentally safe and continually active, it kills 99.99% of microbes and prevents microbe mutation.

For more information and our full product range, please visit hermanmiller.com.au or email us at info_au@hermanmiller.com. Discover how we can help you create healing spaces that do more for the people who use them.

HermanMiller Healthcare

Using technology to keep healthcare facilities clean and safe

People expect healthcare facilities to be clean and safe — and ensuring the safety of patients, visitors and staff is among the most important jobs facilities directors perform. Increasingly, hospitals and care facilities are looking for technologies that maintain cleanliness and reduce hazards like slippery floors and poor indoor air quality, while also improving productivity and reducing chemical use.

A leader in manufacturing equipment for floor maintenance, Tennant Company partners with healthcare facilities to provide machines like the T300 Scrubber to clean effectively and efficiently, helping to reduce costs while minimising safety risks related to floor cleaning. The T300 is a highly maneuverable walk-behind scrubber that delivers outstanding cleaning results with excellent water pick-up that can reduce the potential for slip and fall accidents caused by wet floors.

Tennant's innovative ec-H2O NanoClean™ technology is available with the T300 to further reduce health and safety risks by replacing slippery detergents with electrically converted water to clean floors. Scrubbers equipped with this technology generate millions of microscopic nanobubbles to clean floors. The converted water solution effectively removes typical daily soils as well as food greases and more without leaving chemical residues on the floor. As a result, using the T300 with ec-H2O NanoClean can help improve floor traction to further reduce the risk of slip and fall accidents.

Another option for the T300 is Quiet-Mode™. Using this feature allows operators to clean around patients and visitors with a minimum of disruption, keeping noise to a minimum. Facilities can therefore maintain a daytime cleaning schedule for high traffic areas to contribute to the comfort and satisfaction of patients, visitors and staff.

Tennant innovations including ec-H2O NanoClean and Quiet-Mode show why hospitals and care facilities around Australia rely on Tennant equipment.

"Tennant is dedicated to partnering with our healthcare customers to see that their facilities are cleaned to their high standards, while maintaining productivity and controlling costs. We know you have a commitment to your patients and their families, and our role is to provide trustworthy equipment to help you meet your commitments. We take that very seriously," says Joshua Hastings, Tennant Marketing Manager, Australia and New Zealand.

»

For more information on how Tennant can help make a difference in your hospital and for a full list or machines and products, visit our website or call us to request a free consultation.
1300 TENNANT | www.tennantco.com/au/healthcare | demo@tennantco.com

Designing healthcare

for regional communities

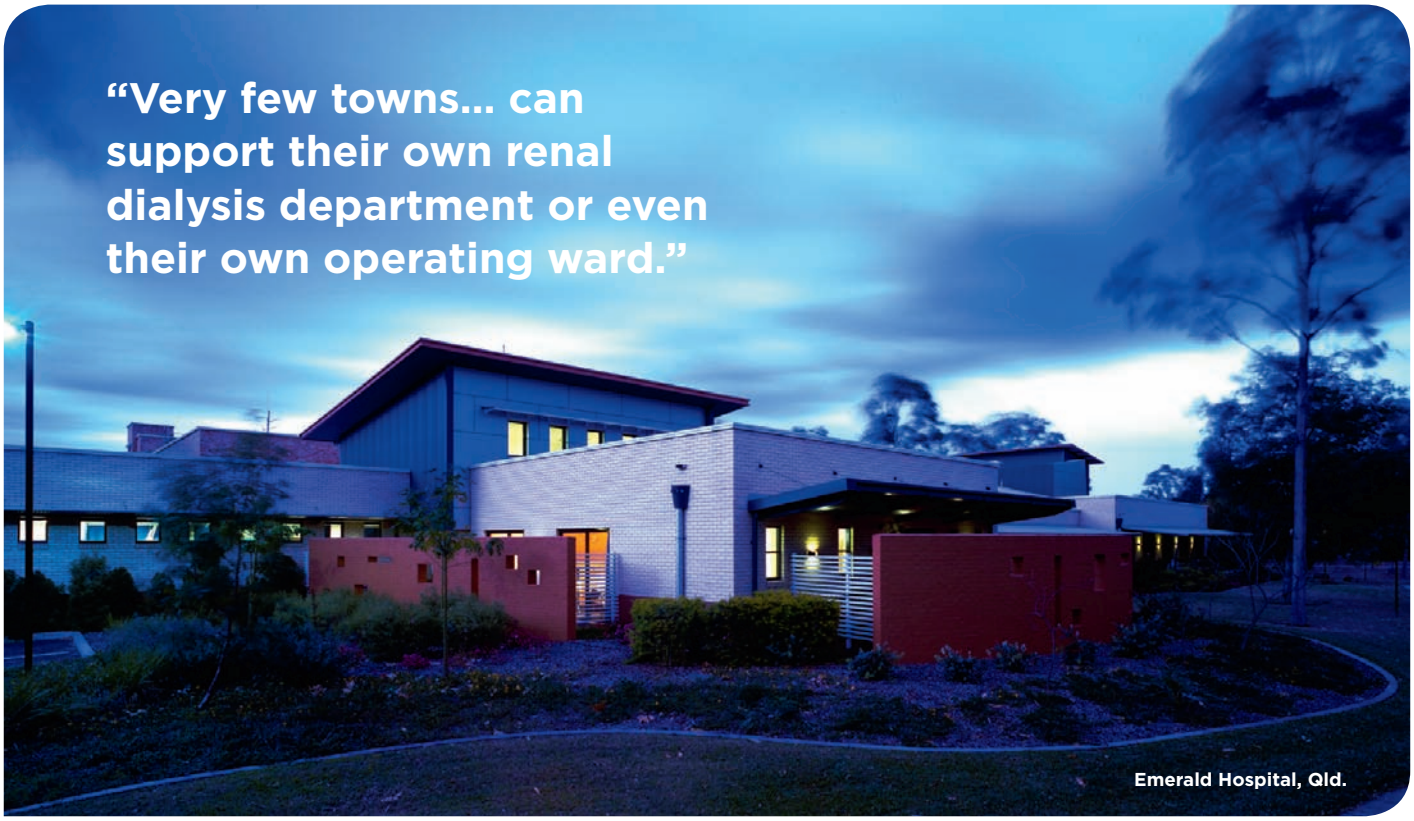
Unlike any other state or territory in the country, most Queensland residents live in regional areas. To support this decentralised population, regional communities demand the same standard of critical care and services that is provided in any major city.

Fulton Trotter Architects has been working in regional health and community projects in Western Queensland for 70 years and has recently been appointed to redesign Clermont Hospital's new aged care facility. Director Paul Trotter* shares his learnings in continuing the practice's legacy in rural architecture.

The most important lesson I've learnt working in rural Queensland is that things are done differently in the bush.

Australia's identity is forged from the bush and strong ties exist between urban and rural communities. But there is a chasm in the values and outlook that is reflected in our politics and our whole way of life.

The passion for community and a rural way of life translates to consultants who work in these areas, and they must share or understand these values if they are to gain the trust and friendship from these communities.



Photographer: Richard Stringer.

When we're designing rural hospitals, we must balance the competing needs to design 21st century, clinically efficient facilities with the need to satisfy the location's distinctive atmosphere and 'spirit of place'. We are building more than a hospital.

Rural healthcare facilities, including hospitals and aged care, are often the cornerstone of their communities. Though they're one of the pillars that support and enhance rural life — alongside the local state school, police station, courthouse and the post office — they're often so poorly serviced that they cannot support the community's needs.

Connecting a community can be an immense challenge at the best of times; however, the task becomes that much harder when that community is in fact multiple communities joined by kilometres of rugged landscape.

As with any healthcare project, the challenge is to understand the processes and model of care specific to that centre. The model of care and patient flow dictates the relationship between different departments, which essentially informs the overall layout of the hospital.

Unsurprisingly, there are vast differences in the models of care associated with metropolitan and regional health centres — primarily dictated by scale and the range of medical services supported.

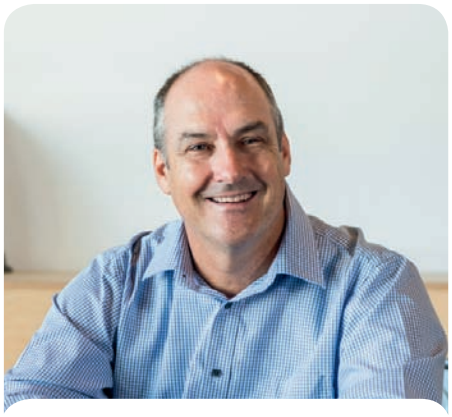
Very few towns, for example, can support their own renal dialysis department or even their own operating ward. This means the centre — and importantly its staff — must be able to accommodate a wider range of services under the one roof. This integrated approach in regional hospitals fosters a more intimate and relaxed environment and informs their design.

Photographer: Richard Stringer.

Understanding the climatic variation in regional areas is fundamental. Particularly in Western Queensland, it can get very hot in summer and very cold in winter. Rain doesn't come frequently, but when it arrives, it rains hard, and for a long time. These are elementary design considerations that you must understand to make provisions for materials, lighting, landscaping and ventilation.

Working in regional areas also requires consideration of labour and material availability. We use local trades and services whenever we can and our buildings are specified using locally available materials and systems, for easy ongoing maintenance.

In smaller regional towns, hospitals play a very significant role in the community, as the key stakeholders — the staff, patients and their families — are almost always locals. They have a personal investment in the community, so it is vital to listen and understand their needs and create architecture that reflects the 'spirit of place'.



*Paul Trotter is an architect and Director of Fulton Trotter Architects. Paul is recognised with numerous awards for his work throughout Queensland and particularly extensive involvement with regional communities.

Plust Gumball Junior Family of child-safe furniture

The Plust Gumball Junior Family of child-safe furniture is the perfect way to turn any room in a healthcare facility into a "Happy Space" for kids.

Plust Gumball — seats, tables, storage "van" or "baby van" on wheels — is super sturdy, smooth, easily cleanable and so comfortable.

Italian-designed with a child's healthcare experience in mind, Gumball Junior's playful, colourful pieces will make a room — or an outdoor space — a place of comfort and adventure for a child.

PLUST® PLUSTCOLLECTION

» For more information visit **www.15thlanding.com.au**

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Protect yourself against biological agents with Bioscreen™

Vertilux's continuous commitment to develop hi-tech fibres for the high demands of infection prevention and control has seen the launch of Bioscreen™ and a refreshed range of Healthcare fabrics.

Recognising the importance of durable microbial protection in keeping window and privacy textiles clean, fresh and odour free, they have manufactured a jacquard textured woven fabric with an inherent polyester modification that provides permanent flame retardancy. While its FRESCHE-TEX application delivers high-performance antimicrobial, antibacterial, antifungal, mould and odour control.

The design of their hospital and healthcare fabric range which can be used for cubicle screens, privacy curtains, window treatments and bed linen is dedicated to one central goal: providing responsible and sustainable products in the support of quality healthcare.

These high-performance fibres have been specifically developed for the high demands of cleanliness required in these challenging and demanding environments. In fact, their new healthcare range is manufactured with permanently anti-microbial and stain/fluid release finishes that prevent bacteria from multiplying in or on the fibre. Additionally, Bioscreen™ is an eco-friendly material, highly durable and easy to launder. The benefits of FRESCHE-TEX are preserved even after multiple washes and the fabric dries quickly.

Furthermore, Vertilux can provide you with a complete healthcare solution to meet the needs of high-end residential curtain tracks right through to heavy duty commercial projects which include manual and motorized systems. They also now have a range of anti-ligature products available including blinds and tracks.

vertilux®

»

To find out more about how we can assist with your next project, visit **www.vertilux.com.au** or contact us on **1800 837 845.**

Industry Comment — Day hospitals — what the future holds

Day Hospitals Australia is acknowledged as the peak industry body representing the day hospital sector nationally in the provision of advocacy, representation and support to ensure relevancy and sustainability within the marketplace.

Our sector is facing many challenges driven by legislative changes, regulatory requirements, private health insurance funding, banding reviews and many other layers of complexity at a state-based level. It is hoped that through ongoing support, promoting best practice and developing and maintaining our critical partnerships, our voice will continue to be heard and our opinions will continue to have an impact. It is an uphill battle and one that we will continue to fight on behalf of our members.

Not only is the sector working in a challenging contracting environment, but we continue to battle with the limitations of the second tier default benefit safety net. Both issues are critical and interwoven and have been identified as requiring urgent attention as part of the Private Health Ministerial Advisory Committee (PHMAC), of which I am a member. PHMAC was established to examine all aspects of private health insurance and provide government with advice on reforms that would improve the value of private health insurance for the consumer. Through the PHMAC, Day Hospitals Australia is able to present and engage in robust discussion with leaders from multiple key bodies including the Australian Medical Association, the Australian Private Hospitals Association, Catholic Health Australia and the Royal Australasian College of Surgeons, to name a few.

Critical to the sustainability and growth of the sector is consumer education and engagement, but for this to occur communication also needs to target the local GP. Many procedures that are currently conducted within a larger public or private hospital setting could certainly be managed within a day hospital facility. The kickback to the patient is that a day hospital setting would potentially be more cost-effective and would afford them the opportunity to return home sooner. The obvious impact on the larger hospital settings is that this would free up theatre space and bed availability for more critical patient care. For the current mindset to change a lot of work is required, but with the key focus of patient care being the driver, we are hopeful that we can help support and direct behaviour to further educate providers and users on the benefit of day hospital services.

Day Hospitals Australia now represents over two thirds of all day hospitals (and some small overnight facilities) nationally. It is only with the tireless support of our members that we can confidently and accurately share the views of the sector at every opportunity provided to us, ensuring that the opinions of our members are heard.

Day Hospitals Australia will continue to empower health professionals with support, resources and a truly representative voice as we promote and work towards raising awareness about the advantages of the day sector for consumers and the overburdened health system.

Day Hospitals Australia membership is open to day hospital facilities, small overnight hospitals, individuals from within the day sector and industry members. Enquiries can be directed to 1800 752 822 or info@dayhospitalsaustralia.net.au.

Jane Griffiths was appointed CEO of Day Hospitals Australia in 2014. Prior to this, Jane held the position of president and has served on the board of directors and the former management committee since 2008.

Jane has held business management positions with specialist and day hospital medical clinics and conducted JG consulting. Jane was nursing coordinator, perioperative services at St John of God Hospital Subiaco for 10 years. In this role, Jane participated in a seven-week sabbatical to the USA to explore the latest trends in same-day surgery.

Jane is passionate about same-day surgery and works tirelessly in supporting the members of Day Hospitals Australia.

Day Hospitals AUSTRALIA

Day Hospitals – Shaping the Future of Healthcare

REGISTRATIONS ARE OPEN FOR THE

DAY HOSPITALS AUSTRALIA NATIONAL CONFERENCE 2017

31 AUGUST - 2 SEPTEMBER 2017 AT SYDNEY OLYMPIC PARK, NSW

Day Hospitals Australia empowers health professionals with support, resources and a truly representative voice. We have listened carefully to your needs and devised a conference program that addresses key topics concerning the medical industry and its practitioners.

Reasons why you should attend this program:

- **Inspirational Speakers | Concurrent sessions on topical and diverse subjects geared towards the sector**
- **Connect with colleagues in the sector**
- **Saturday Program offered | Flexibility for medical and other staff outside of normal working hours**
- **Meet with key trade suppliers**
- **City location**

We believe a day can make a world of difference!

So we have created a conference that maximises your day of professional development, giving you more for your time and money.

Plenary, Concurrent & Panel Sessions

The diverse range of subjects allows you to take away valuable insights and strategies that you can apply to grow and sustain your business in a changing medical industry. Concurrent sessions fall within 3 topic areas: Clinical, Business Development & Management.

Saturday Program - Clinical Focus

Weekend sessions ideal for professionals who can't take time out. Captivating content with a clinical focus, including:

- **'The Future requires the Past be part of the Present: Dementia and Day Hospitals', presented by Professor Joseph Ibrahim and Margaret Winbolt,**
- **'Day Hospitals Helping to Shape the Future of Health Care Funding' presented by Associate Professor Munjed Al Muderis, and**
- **Panel discussion on future of Day Hospitals.**

Networking Opportunities

This conference is designed to foster the connection of industry peers and the building of professional relationships. The program includes 4 informal functions all of which are excellent opportunities to meet, reconnect and exchange insight at a time that is convenient for your individual schedule.

Trade Exhibition

This year's exhibition is bringing the key trade suppliers to you with over 40 businesses exhibiting an extensive variety of products and services.

Registration Discount

Day Hospitals Australia members enjoy a discount on conference registration, paying only $853 ex GST for the full 3 days, while the conference registration fee for non-members is $1017.50 ex GST.

For more information, view the program and to register go to
www.dayhospitalsaustraliaconference.net.au

For general information regarding the conference or Day Hospitals Australia membership, contact our staff on T: 1800 752 822 or info@dayhospitalsaustralia.net.au

Meeting between experts:

supporting shared decision-making in practice

In Australia, only around 40% of adults have the level of individual health literacy needed to effectively understand and use information about health. Low health literacy is associated with higher rates of hospitalisation and emergency care, and adverse outcomes more generally. Low health literacy is also associated with lower uptake of preventative health measures.

The Australian Commission on Safety and Quality in Health Care (the Commission) has developed a national program of work on shared decision-making as a part of its commitment to supporting partnerships with consumers, reducing unwarranted healthcare variation and ensuring appropriateness of care.

Shared decision-making happens when a clinician and a patient jointly make a decision about healthcare after discussing the different options for care, the likely benefits and risks of each option, and the patient's values, preferences and circumstances.[1]

Internationally, shared decision-making is seen as a sign of good clinical practice.[2] It helps clinicians to better understand the patient's views, helps patients to be better informed about their options and supports patients to be partners in their care, to the extent that they choose, or are able to be.

Shared decision-making can be helpful in a number of clinical situations, particularly where there is more than one reasonable treatment option; when no option has a clear advantage in terms of health outcomes; and where the patient may view the benefits and harms of the options differently from the clinician.[3]

The potential benefits of shared decision-making include[4,5,6,7,8]:

- Improving patient knowledge, risk perception accuracy and patient–clinician communication.
- Reducing a patient's conflict about making a decision.
- Potentially reducing inappropriate use of tests and treatments.

Tools and resources to support shared decision-making

There are a variety of tools that can be used to assist shared decision-making. Some of the resources the Commission has developed include:

Patient decision aids

Patient decision aids are tools developed for particular conditions or treatments. They can help patients and clinicians draw on high-quality, synthesised information, compare the benefits and harms of each treatment option and clarify patients' values about what matters most to them.9 The Commission has developed three patient decision aids on antibiotic use in the common conditions of sore throat, acute bronchitis and middle ear infection in primary care.

Question Builder

The Question Builder is a web-based tool to assist people to prepare for a visit to a general practitioner or a specialist. The tool, developed in partnership by the Commission and Healthdirect Australia, supports people to build a list of questions that they would like to ask their doctor, and to consider questions that their doctor may ask them.

Top tips

The Commission has also developed 'Top tips for safe health care', a resource designed to assist consumers, their families, carers and other support people to ask questions, understand their rights and provide feedback about their experiences in healthcare.

Training for clinicians

The Commission, in collaboration with experts, clinical colleges, education groups and consumers, has developed an online training module for clinicians on the best ways to communicate risks and benefits to patients. The initial version was released on gplearning in July 2016 and a second version is being produced with several specialist colleges for release later this year.

About the Commission

The Australian Commission on Safety and Quality in Health Care is an Australian Government agency that leads and coordinates national improvements in the safety and quality of healthcare based on the best available evidence. By working in partnership with patients, consumers, clinicians, managers, policymakers and healthcare organisations, the Commission's aim is to achieve a sustainable, safe and high-quality health system. The Commission has an ongoing program of significant national activities with outcomes that are demonstrating direct patient benefit as well as creating essential underpinnings for ongoing improvement.

The Commission aims to use its role as the national body for safety and quality in healthcare in Australia to ensure that the health system is better informed, supported and organised to deliver safe and high-quality care.

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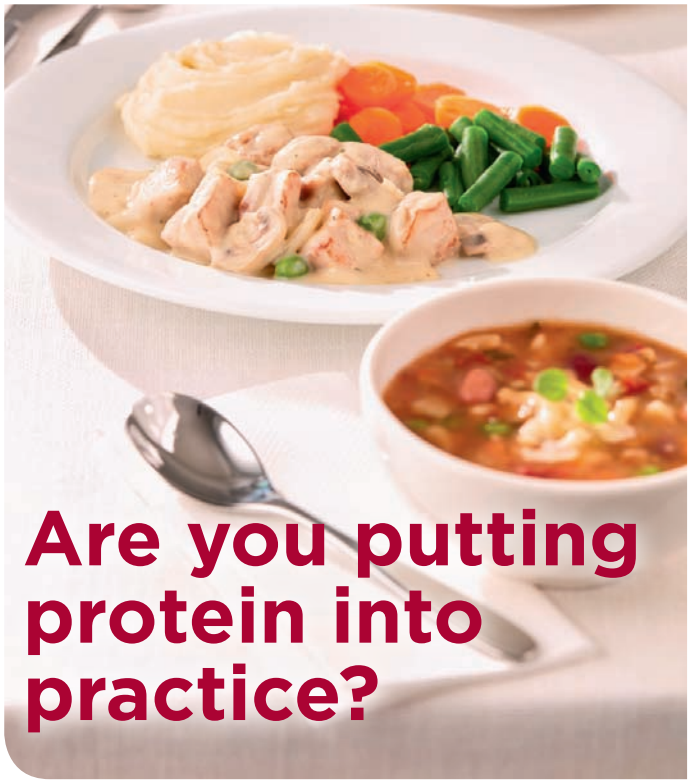
AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE



Are you putting protein into practice?

Today we're living longer and healthier lives than ever before, but research shows that undernutrition is common among older people with 44% of elderly Australians at risk[1]. Protein is important at the extremes of our life stages; in the early years essential for our children's normal growth and development, while in later years being vital for the preservation of muscle mass and the benefits this brings to strength, mobility and general health.

Nestlé Professional has developed an educational booklet to support foodservice operators in aged care to meet their residents' needs for protein. *"With research highlighting the need for more protein to support healthy aging[2], the dilemma when working in aged care is how to meet these increased needs,"* says Karen Kingham, Brand Nutritionist Nestlé Professional. *"This is particularly so when surveys show many of the over 65s are not even achieving minimum protein need[3]."*

Furthermore, *"Small appetites and changes to taste perception can make providing tasty, nourishing and nutritionally complete meals for aged diners a challenge,"* says Mark Clayton, Nestlé Professional Executive Chef.

The solution to healthy aging is complex, but research tells us that maximising protein intake at all meals is an important part of the process. Experts say that we should be aiming for around 25–30g of protein at each meal for the over 65s to achieve this[1].

The booklet, Your Practical Guide to Protein in Aged Care, is a 27 page guide supporting aged care kitchens with basic information around protein; where to find the best sources and why it's so important for healthy aging, plus guidance around menu planning and how to put the recommendations for more protein into practice in your menu.

This advice is supported with 16 nutritionally assessed and tested recipes using a range of protein fortification strategies, showcasing NESTLÉ DOCELLO Protein Enriched Dessert Mixes, as well as utilising pantry staples to deliver tasty and visually appealing meals across your menu.

To download your free copy of the Practical Guide to Protein in Aged Care visit the Nestlé Professional website — https://www.nestleprofessional.com.au/nutrition/your-practical-guide-protein-aged-care. You can contact us on 1800 20 30 50.

[1] Flanagan D et al. Psychological strategies. 2012. [2] Bauer J et al. Am J Med Dir Assoc. 2013.
[3] Taylor & Luscombe-Marsh. Food Australia. 2015.

Nestlé MAKING MORE PROFESSIONAL POSSIBLE

» For more information visit **www.nestleprofessional.com.au**

Hakuna Matata Frittata
– it means no worries for hospitals

Flinders Private Hospital Adelaide and Healthscope Campbelltown Private Hospital are among a host of Australian hospitals enjoying cracking success in the kitchen with reduced contamination risks, as well as reduced overhead costs in preparation and cooking time.

The secret to their success is in the pre-prepared egg meals from Sunny Queen Meal Solutions – which offer increased efficiency in the kitchen and faster, nutritious meals for patients, with food solutions such as poached eggs, smashed egg, fritters, omelettes and more.

In response to industry demand, the range has just expanded to include Frittatas, with the hearty Vegetable and unique Asian Chicken and Corn varieties which make for a delicious lunch or a meal for any time of day.

Sunny Queen Meal Solutions' Frittatas are a powerhouse of nutritious vegetables and real eggs, and their texture is suitable for many patients. With a vegetarian option and another with chicken to satisfy all palates, hospital kitchens can serve up tasty meals with chunky ingredients in a delicate egg base that will ensure patients remain nourished during their hospital visit.

Mark Shevlin of Flinders Private Hospital Adelaide, first considered Sunny Queen Meal Solutions as a way of reducing contamination risks in the kitchen.

"In a hospital environment we are dealing with a vulnerable population, so having a safer product like Sunny Queen Meal Solutions is really valuable as it reduces the risk of infection and illness associated with using raw egg," he said.

"When you're responsible for ordering food for thousands of sick and injured people, you need to ensure you're considering taste, food safety, texture, how it's prepared and so much more,"

John O'Hara, Managing Director of Sunny Queen Meal Solutions, said Sunny Queen Meal Solutions understands the balance between chefs wanting the best eggs and kitchen managers needing to streamline expenses.

"We know that Australian hospitals serve around 33 million meals each year - that's a lot of preparation and cooking going on, and a lot of mouths to feed," he said.

"Under the food safety plan, raw egg is a hazardous product and a lot of effort goes into the storage and handling of eggs in a commercial kitchen to reduce any risk of contamination. Pre-prepared frozen egg meals remove the need for powdered or raw eggs, so real eggs can be served with confidence," he said.

Sunny Queen Meal Solutions products are cooked fresh and snap frozen, and are ideal for heating in microwaves and combi or conventional ovens. With no added artificial colours or flavours and HACCP certified, it's the smart decision for cooking in large quantities.

"When you're responsible for ordering food for thousands of sick and injured people, you need to ensure you're considering taste, food safety, texture, how it's prepared and so much more".

» The full Sunny Queen Meal Solutions range along with images and nutrition facts is available to review at **www.sunnyqueenmealsolutions.com.au.**

Gourmet Frittatas in a flash.

Available in two new irresistible varieties: Vegetable and Asian Chicken & Corn.

Our new Frittatas add a touch of fun and flair to your lunch menu. The cafe-style Asian Chicken & Corn, and vibrant Vegetable Frittata topped with quinoa, are the first two varieties our chefs have created for this brand new range. All Frittatas in the Meal Solutions range are made with real eggs and quality ingredients. Then they're snap frozen and delivered, ready to be heated and served. **For more information call Sunny Queen Customer Service on 1300 834 703 or visit sunnyqueenmealsolutions.com.au**

Real eggs. Real easy.

Sunny Queen® Meal Solutions

Dementia Matters — rethinking the food model for people living with dementia

Corin Kelly

Lainie Lynch is improving the nutritional profile of people living with dementia through a food service model based on the internationally awarded Butterfly Household Care Model, pioneered by Dr David Sheard, founder of Dementia Care Matters in the UK.

The Butterfly Household Care Model is an intricate element of The Salvation Army Aged Care Plus' Making Moments Matter care philosophy and was introduced in July 2016 to two Aged Care Plus centres in Narrabundah, ACT, and Chapel Hill, Qld. Physical, cultural and environmental changes have been implemented in line with the model throughout the memory support units at both centres.

Since the model's commencement there has been a dramatic reduction in expressive behaviours amongst residents including verbal and physical aggression, agitation, wandering, isolation and confusion. There has also been a significant reduction in pain, falls and the requirement for psychotropic medication amongst residents.

The model's overarching philosophy is one of providing person-centred care as opposed to task-based care. It requires staff to be empathic towards the emotional experience of residents living with dementia and they receive extensive training in person-centred care delivery.

Lainie is heading up the food delivery aspect of the model, which she says is seeing a significant improvement in residents' overall health, BMI and enjoyment of the mealtime experience. Lainie explains how the new model is transforming residents' mealtime experience.

"In our centres we have identified and removed any aspect of the environment with a clinical appearance. For example, our staff wear casual day clothes instead of uniforms and all our rooms are decorated with vibrant colours. While the use of colour creates a less clinical aesthetic, it also allows greater independence for those with sight spectrum declines and helps to reduce falls and enables easier navigation.

"Our foodservice environment reflects a family setting where staff share meals with the residents. Instead of plating all meals, we bring food in large serving bowls to the table so residents can help themselves and staff are there to assist and talk to the residents about the food.

"We encourage our residents to be involved in the preparation of meals including setting tables and we provide access to cooking utensils, bowls, aprons and all styles of kitchen paraphernalia. Bread machines are preset to have a fresh loaf ready each morning of the week. The focus is on stimulating all the senses and memories connected with the love of cooking and the enjoyment of food.

"Residents have access to meals and snacks at all times from a well-stocked kitchen so healthy food is available 24 hours a day. To enhance our residents' nutritional intake we provide a choice of two proteins with each meal. Meals are served in a small domestic-style buffet on the table or kitchen benches in warmers. This allows the meal service to run for up to two hours and is especially helpful for breakfast when residents may wish to sleep in."

Lainie and her team are constantly testing and updating recipes to ensure the menu plans contain meals of high nutritional value that residents will look forward to.

"I am developing new recipes all the time to enhance the nutritional intake of our residents," Lainie said. "Before I test a recipe I run it through the Foodworks application that provides a nutritional panel for all the ingredients.

"It is essential to provide meals that are home-like and tasty and suitable for the generation that we are feeding.

"I feel this is missing in many aged-care food models. These residents are coming from an era of shepherd's pie and braised steak — these are the foods they are used to eating. It's important not to forget who we are looking after.

"Every three months my area managers and or I meet with the food focus groups across our 16 residential aged-care centres. We discuss the menu that is in place at each home and design a 5 week-2 choice menu cycle based on resident feedback. For instance, in the last meeting people were asking for beef and kidney pie as the weather is cooler.

"We don't make assumptions about what our residents are going to want to eat. We talk to them to find out and sometimes the answers we get back are surprising. The residents at one of our regional centres in central NSW, traditionally meat and three vegetable country, enjoy a wide variety of pasta dishes.

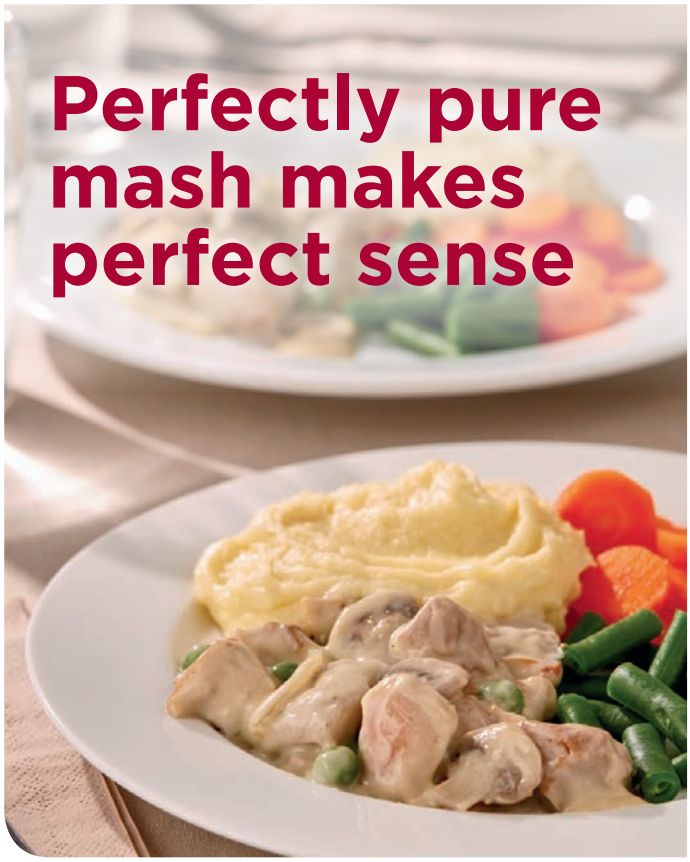
Lainie feels Aged Care Plus' dementia care philosophy, Making Moments Matter, is proving successful and is being embraced by residents family and staff.

"We have found that since implementing the dementia philosophy, our residents are eating more food, more regularly, and this is hugely significant when malnutrition is such a concern amongst those living with dementia," she said.

"Seeing our residents enjoying their food and anticipating the next meal is enormously satisfying. The clinical outcomes we are seeing from Making Moments Matter is very positive, but for me to have a resident say to me 'I can't wait to have a biscuit or ice-cream at morning tea instead of supplements', is the strongest indicator that we are on the right track," Lainie concluded.

Lainie Lynch, Quality Consultant Hospitality, The Salvation Army Aged Care Plus, has been instrumental in facilitating change and improving outcomes for aged-care residents, representatives and consumers. Her passion for aged care, particularly dementia care, stems from personal experience with family and this has been her inspiration for transformational change. Her extensive experience as a chef and hospitality services manager has resulted in tangible outcomes in improving hospitality services in the aged-care environment.

Perfectly pure mash makes perfect sense



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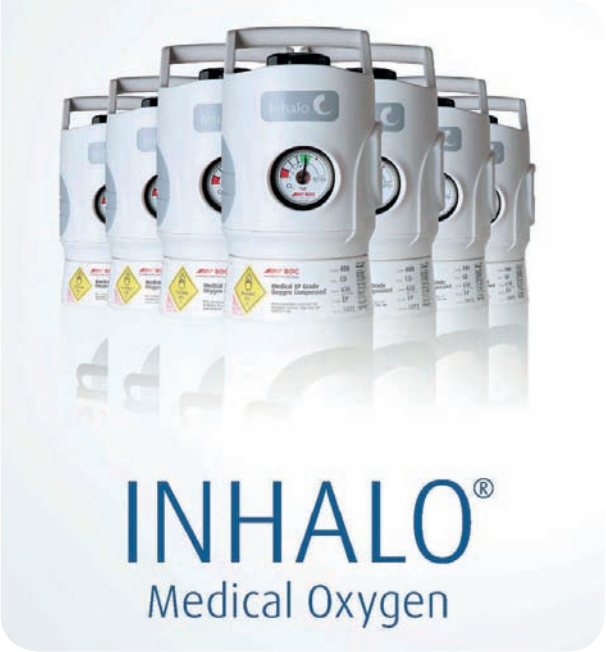

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Gas volume	630 litres
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Full weight	4.4 kg
Height	555mm
Diameter	105mm
Outlets	400 kPa outlet pressure (g)
- Firtree	Also known as 'barbed tail' Tubing diameters 6-8 mm Flow rates 1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 15 lpm
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A Day in the Life

Jason Seet is the Infectious Diseases/Critical Care Pharmacist at Sir Charles Gairdner Hospital in Perth, WA. With patients in Intensive Care and the High Dependency Unit at increased risk of hospital-borne infection, Jason shares a day in the life of a clinical pharmacist — a vital intermediary between care teams who ensure all medicines are effective, tolerated and contributing to optimal patient outcomes.

07:30 I arrive at work and sort through emails, mainly responding to colleagues and collaborators from other hospitals.

08:00 I join a combined ward round on the Intensive Care Unit (ICU) and the adjunct High Dependency Unit (IDU), which care for people at high risk of infection and clinical deterioration, so managing effective handover is crucial.

08:30 I look over all patient charts in the ICU and review their medicines: consider overnight observations, check for any adverse drug interactions, ensure each patient is on the right doses of the right treatments and confirm they are on appropriate antimicrobial therapies.

10:45 I join the PathWest laboratory round with my Infectious Diseases (ID) 'hat' on. This is a statewide service through which I can go 'bench to bench' looking at new microbiology results, which gives us deeper insight into the pathology of different patients' diseases and can help inform adjustments to their medicines and treatments.

I respond by email to colleagues from the Infectious Diseases Specialty Group as part of the Society of Hospital Pharmacists of Australia (SHPA).

12:00 The ID/ICU microround starts and the microbiology team meet with the ICU team to discuss each patient and whether to stop, start, adjust or continue these treatments.

Over lunch, our research committee meets to discuss new projects presented to the hospital and whether they will benefit our patients if we take part. I also hook into new funding opportunities through SHPA's new National Translational Research Collaborative.

06.00 07.00 08.00 09.00 10.00 11.00 12.00 13.00

10:00 I move to the HDU, where patients are still critically unwell but tend to present less complicated disease profiles. Partnering with the medical team, we review medicines and adjust accordingly.

11:30 I head back to ICU and prepare ICU and HDU for the ID/ICU microround (there are a lot of acronyms in pharmacy!). I gather the latest results (microbiology and other lab results including PCT, CRP, etc,) and make sure it is clear which patients are on antimicrobial medications and why.

13:00 Still more emails and I check referrals for the afternoon's antimicrobial stewardship (AMS) round. I am in charge of AMS at Sir Charles Gairdner Hospital, which serves to ensure appropriate use of antimicrobials throughout our hospital. I manage all referrals through our electronic system, eReferrals, which is used by our doctors, nurses and other clinical staff.

"I review the AMS referrals throughout the hospital and review their charts, gathering key information ... "

14:30 I meet up with the ID consultant and visit each patient again. The consultant runs over my plans as I summarise each person's situation, medical background, medicines history and microbiology results. In handing over to the consultant we discuss if we can step down or escalate medicines, whether we should switch from intravenous to oral or vice versa, or perhaps broaden or narrow the scope of their treatments.

This assessment is important as it can lead to cost savings and, more importantly, can improve patient outcomes and their level of comfort while in hospital.

17:30 My day usually wraps up by 5 pm, but today I have other appointments to cover and duties as adjunct lecturer at the University of Western Australia, where I provide lectures on immunisation and infectious diseases to postgraduate pharmacy students.

14.00 15.00 16.00 17.00 18.00 19.00 20.00 21.00

13:30 I review the AMS referrals throughout the hospital and review their charts, gathering key information such as: are they improving? Why did they start on antibiotics? How are they feeling? What are their relevant laboratory and clinical observation results? I'll see approximately five or six patients in this way per day, summarising an update for an electronic reply to the person who referred them, which they can view instantly, anywhere in the hospital.

16:30 I pay a quick visit back to ICU to answer questions and sort out any last minute issues. Along the way, I also drop into the office for another email check, noting new referrals and responding to enquiries.

A Day in the Life is a regular column opening the door into the life of a person working in their field of healthcare. If you would like to share a day in your working life, please drop me an email: **ahhb@wfmedia.com.au**.

Hospital cleaning and disinfection: what is best practice?

Most hospitals focus their efforts only on terminal cleaning of patient rooms, with less emphasis on daily cleaning. However, as Ivan Obreza* from Diversey Care, Australia points out, this must change in order to achieve better patient outcomes.

There is clear evidence (Mitchell 2015, Otter 2013 and Hayden 2008) that the most contaminated environmental surfaces in hospitals are those close to the patient, and that the risk of cross-infection is higher if a new patient is admitted into a room previously occupied by an infected patient.

Cohen (2012) stated that 45% of the people who enter a surgical unit patient room are nurses. 23% are visitors. **The patient's bedrail is touched up to 256 times per day by different people. Yet it is disinfected only once.** And in many cases, probably not at all.

Thus we should not be surprised that high touch surfaces in the patient zone contribute to hospital-acquired infection (HAI) risk. It follows that more frequent disinfection at the point of care is important if we are to lower HAI rates and healthcare costs.

In her 2015 study published in the *American Journal of Infection Control*, Michelle Alfa showed that best practice is dependent upon the "3 Ps" of disinfection: the right product, the right process, and proof of cleaning compliance.

There is no magic "silver bullet" when it comes to selecting the right product. All disinfectants have some limitations or side effects. Some damage fabrics and equipment, others are not sustainable, and many leave sticky residue on surfaces.

Selecting the right disinfectant for a hospital is a matter of balancing the trade-offs between efficacy, surface compatibility and safety. Rutala & Weber (2014) argue that the cost of labour and the cost of infection should form part of a facility's calculation when evaluating the selection of the ideal disinfectant. They contend that the buy price of a particular product does not necessarily reflect its long term value as a safe, effective disinfectant.

With the advent of sporicidal products, very high-level disinfection – previously the domain of CSSD – is now available at the point of care. Sporicidals kill bacterial spores such as *C. difficile* without the toxicity associated with bleach. A sporicidal product should be considered where there is a high index of suspicion of *C. difficile* infection (CDI) e.g. diarrhoea with antibiotic administration.

Once the right disinfectant has been selected, the right process needs to be implemented. If cleaning time is limited, it makes no sense to disinfect ledges and window panes when the pathogens are concentrated on bedside tables, remote controls and bedrails. Start at the bed, then work outwards. Clean the bathroom last.

Microfibre is a reliable platform as the cloths and mops mechanically remove pathogenic load that may be missed by inadequate disinfection.

A review of the available evidence to date suggests that the right process for best practice disinfection includes using disinfectant wipes at the point of care and encouraging their use by clinical staff. The simple act of using a disinfectant wipe on stethoscopes between patients is a good visible reminder of the need for a team approach to infection prevention.

Proof of cleaning compliance can be performed by cleaning supervisors or infection prevention nurses. Fluorescent ink validation with UV light leads to a clear improvement in cleaning effectiveness (Rutala & Weber, 2010).

Cleaners remain the last line of defence against HAIs. But with the increasing complexity of modern healthcare, we cannot expect cleaners to be the only line of defence. We each must play a part to optimise patient outcomes. It is incumbent upon us all to foster a team-centred approach to cleaning and disinfection.

About Diversey Care

We are the leading provider of smart, sustainable solutions for cleaning and hygiene. Through the integration of new technology-enabled services and systems, our solutions drive increased productivity, food safety and infection prevention to ultimately enhance the end-user experience.

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*Ivan Obreza is an infection prevention consultant and the senior clinical advisor for Diversey Care, Australia.

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First results of an electrochemical water management system in Australia

Sergio Ferro, Tony Amorico and Erica Donner

This article reports on a successful *Legionella* risk mitigation in an Australian healthcare facility following the installation and optimisation of an on-site electrochemical water disinfection system (Ecas4 technology).

In May 2016, an in-line Ecas4 water disinfection system (WDS) was installed at the North Eastern Community Hospital (NECH) in Adelaide, where microbiological water quality monitoring had indicated systemic *Legionella* contamination of the water distribution system.

Installation was preceded by baseline sampling of the tap water throughout the hospital, and of the biofilms on the internal surfaces of copper and plastic water distribution pipes, in order to determine the initial contamination level and facilitate appropriate verification monitoring of

"... the water quality throughout the system consistently improved by the third post-installation sampling event."

the disinfection process and other water management activities. Total microbial counts and *Legionella* plate counts (*Legionella pneumophila* serogroups and other *Legionella* species) were conducted by a NATA-*Legionella* laboratory used by the hospital for regular monitoring, while complementary diagnostic and verification monitoring was carried out by researchers at the University of South Australia.

As proven by the hospital's regular NATA-accredited testing laboratory using the heterotrophic colony count (HCC) and the *Legionella* plate count methods, the water quality throughout the system consistently improved by the third post-installation sampling event (Day 22 post installation), with no sample points returning positive *Legionella* plate counts since that time.

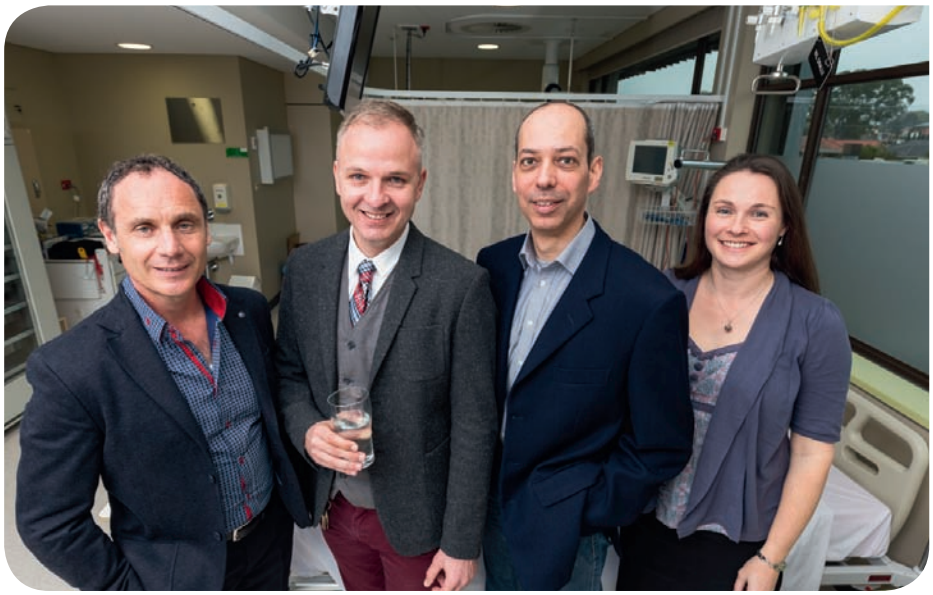
The positive effect on the water quality following installation of the WDS was further confirmed by *Legionella* qPCR analysis, a method that is very specific to *Legionella* species as it directly targets a DNA sequence that is characteristic of these bacteria. In this case study, the qPCR data (which are expressed in genomic units per mL of water, Figure 1) show very clearly that the *Legionella* counts (from the same 11 rooms sampled repeatedly throughout the case study) decreased significantly following installation of the Ecas4 in-line dosing system. The large error bars on the baseline samples to the left of the graph indicate the extremely variable water quality that was typical in this water distribution system prior to the installation of the WDS. This is common under such conditions as the water quality can vary significantly depending on the length of time since the tap was last used.

The improvement in water quality illustrated in Figure 1 is linked to the establishment of increased chlorine residual in the water supply network as a result of the anolyte dosing.

Although potable water suppliers in Australia aim to deliver a suitable chlorine residual for disinfection purposes, this varies between buildings depending on their distance from the treatment plant. Moreover, on-site water management within healthcare facilities may inadvertently exacerbate this situation (eg, water softeners, often installed with the intention of improving water quality, also remove active chlorine present in the system, thereby adding to the challenge of maintaining adequate microbiological quality in the water supply). By adding the Ecas4-Anolyte, a significant improvement in chlorine residual is readily obtained, although it take time for free chlorine levels to stabilise throughout the system.

As HOCl is uncharged and has a relatively low molecular weight, it is better able than other chlorine species such as OCl- to penetrate cell walls. It also reacts more rapidly than other chlorine species, in both oxidative and substitution reactions, with organic matter, including critical components of bacterial cells. In contrast with other biocides (eg, chlorine dioxide, which is often considered the most powerful disinfectant), hypochlorous acid is more likely to oxidise the polysaccharides that constitute biofilms and may help decrease this ongoing source of microbial contamination within the pipe network.

Water management optimisation at this facility is ongoing, and the next steps will include the treatment of cooling towers. At present, the Ecas4 WDS has allowed the hospital to reduce its hot water temperature from about 80°C down to about 60°C, allowing savings in the hospital's gas bill by about one third (about $7000 a month).



Left to right: Tony Amorico (Director of Ecas4), Scott Williams (CEO of the NECH), Sergio Ferro (Technical Manager of Ecas4) and Dr Erica Donner (UniSA).

Improving infection prevention practices through consultation

Hospitals are under increasing pressure to control infection while complying with complex guidelines and standards. We spoke with Dr Deverick Anderson* about his role at the US-based Duke Infection Control Outreach Network (DICON) and the importance of collaborative research between clinicians. Dr Anderson will visit Australia to speak at the ACIPC Annual Conference in Canberra in November.

*Dr Deverick Anderson is an Associate Professor in the Division of Infectious Diseases and Department of Medicine at Duke University, USA. He is Director of the Duke Center for Antimicrobial Stewardship and Infection Prevention.

He has authored over 140 peer-reviewed articles related to quality of care, patient safety, healthcare epidemiology, antimicrobial stewardship and multidrug-resistant pathogens. He was also lead author of the BETR-D Disinfection Study and last year received the Distinguished Scientist Award from APIC.

In your role at Duke, you are actively involved in both clinical work and research — what do you enjoy about this?

My passion is with research, but it's critical to maintain a clinical presence. There is nothing quite like seeing patients in the hospital to identify trends and find opportunities for improvement — both of which can lead to new ideas with research.

Can you tell us a little about DICON and how it operates?

Infection control is a challenge for hospitals everywhere, and community hospitals and surgery centres face the difficult task of providing state-of-the art, safe care while adhering to complex regulations.

DICON is one of the core programs in the Duke Center for Antimicrobial Stewardship and Infection Prevention in the US. DICON is focused on helping more than 40 community hospitals and surgery centres address these issues by improving infection prevention practices through programmatic consultation, education, and data review and feedback.

How important is it for professionals working in infection prevention to keep up with the state of scientific evidence? Why do conferences play an important role in this?

It is critical for professionals to keep up with the state of scientific evidence. The world of healthcare epidemiology is changing so rapidly. Data on new and better interventions and strategies are constantly being published. Conferences allow for focused review of the 'latest and greatest' information, oftentimes prior to peer-reviewed publication. As a result, conferences allow attendees to get a good idea of what is coming down the healthcare epidemiology pipeline.

You are a keynote speaker this year. What are you looking forward to in terms of the ACIPC conference and visiting Australia?

Many things! I've never been to Australia and will be bringing my family to experience it with me. I've been to several conferences outside of the US before and greatly enjoy the opportunity to meet people and hear about how they practise and research healthcare epidemiology in their respective settings. I always learn something new and am enriched by the experience.

For more information regarding the ACIPC Annual Conference, visit 2017.acipcconference.com.au or call Andrew Watts on +613 6231 2999. Conference abstracts will be published in the journal *Infection, Disease & Health*.

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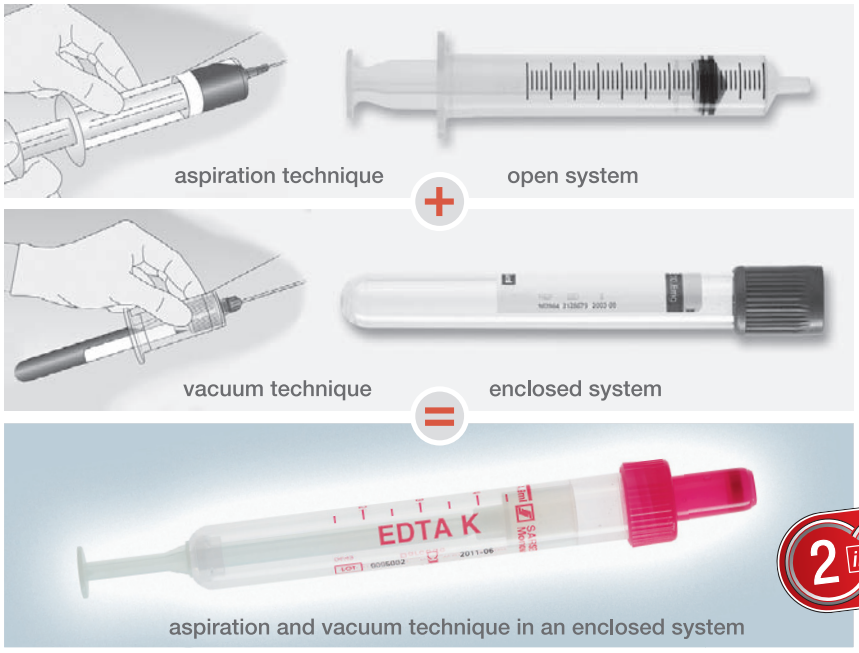

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How ready are you for mandatory respiratory protection?

Cathryn Murphy

The ways infectious diseases are spread are complex and some infection control experts are questioning the current paradigm that dictates the selection of personal protective equipment (PPE).[1]

Experts are now looking closely at the mode(s) of disease transmission and are reviewing which combinations or specific pieces of PPE are suitable and critical to prevent occupational transmission. Powered air-purifying respirators (PAPRs) provide the highest level of respiratory protection. The vexing question of when and for which specific diseases healthcare workers (HCWs) should routinely use PAPRs requires urgent consideration and clarification.[2]

Reports published after the 2014 West African Ebola outbreak suggest that many HCWs, including those from countries where infection prevention and control systems are robust, were unable to appropriately select, access or use respiratory PPE.[3,4] Even the world's two most powerful and respected public health agencies gave contradictory respiratory PPE advice for Ebola prevention.

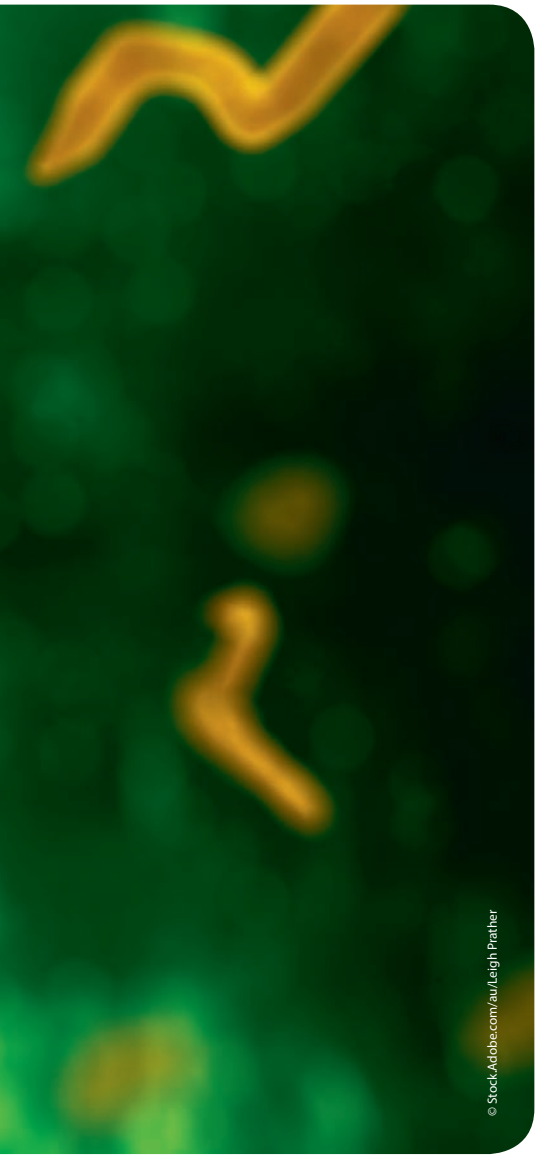
The World Health Organization (WHO) continues to recommend use of medical masks for all tasks other than aerosol-generating procedures.[5] For these procedures, WHO recommends N95 or equivalent respirators. WHO's recommendation was consistent with the US-based Centers for Disease Control and Prevention's (CDC) initial advice. However, following transmission of Ebola among nurses based in the US, the CDC upgraded its recommendation to routine use of N95 or equivalent respirators.[6] For aerosol-generating procedures the CDC recommends either a PAPR or a disposable, NIOSH-certified N95 respirator.[7]

The 2003 global epidemic of severe acute respiratory syndrome (SARS) highlighted healthcare worker incompetence and confusion regarding selection, application, safe use and disposal of PPE.[8] The 2014 Ebola and 2016 MERS outbreaks confirmed this.[1,9]

Some speculate that HCW transmissions are often the result of accidental self-contamination.[3] Furthermore, the methods of donning, doffing and decontamination of respiratory PPE are unclear and potentially impractical. One advantage of PAPRs with a full-face covering and head shroud is that they reduce accidental self-contamination during care.

Raina MacIntyre, professor of infectious disease epidemiology, UNSW, highlights HCW misuse of PPE, suggesting that despite PPE the HCWs who contracted Ebola did so through respiratory transmission.[10] Mike Edmonds, clinical professor of internal medicine – infectious diseases, University of Iowa, adds to this theory, highlighting the need for extensive PPE practice enabling HCWs to gain PPE proficiency.[3] MacIntyre also reminds us of the discomfort, restriction and fatigue often accompanying extensive PPE use.[10] Her reminder suggests that HCWs must also practise PPE perseverance. This is especially important when caring for a patient with Ebola, where some episodes of direct care can involve several consecutive hours of direct contact.

The current Australian recommendations for Ebola[11] acknowledge discomfort with



prolonged PPE use and suggest PAPRs replace P2 masks, goggles or face shields, and a head cover. They recognise the comfort of a constant supply of fresh, cool air to the HCW's face.

Concerned by the ambiguity, vagary and contradiction of existing global advice for respiratory protection when caring for a SARS or Ebola patient, in 2016 I conducted a global survey of HCWs to better understand their behaviours and motivations around respiratory protection choice.

Respondents were invited to complete a 15-item web-based survey. Almost 400 infection control experts in Australia and the US were invited to take the survey. An invitation was also posted on Infection Control Plus's Facebook page. All invitation recipients were encouraged to share the link to peers. Data was collected for six weeks. PAFtec Australia, an Australian-based manufacturer of respiratory protection, commissioned the survey. PAFtec had limited input into the survey design and no access to individual responses.

The 35 respondents were mostly based in Australia (48.6%), the USA (28.6%) and New Zealand (17.1%), with one each from Canada and the Netherlands. Almost all (91.4%) were responsible for or part of the team responsible for their organisation's infection control program. 5.7% were frontline care providers.

The most commonly reported piece of respiratory protection used for patients under airborne precautions was the disposable P2/N95 or equivalent mask. These were used in the hospitals of 91% of respondents. The next most common was the re-usable PAPR, which was used in over a quarter (26.5%) of respondents' hospitals.

Respondents gave a variety of reasons for not routinely using PAPRS when caring for patients under airborne precaution isolation. The three most frequent were PAPRs not being available, being too expensive and requiring disinfection after each use. Almost a quarter of respondents found PAPRs too difficult to don and doff and just under 10% believed PAPRs to be more dangerous than disposable masks.

When questioned about their preference to wear a PAPR when providing routine care to or when in direct contact with a patient isolated under airborne precautions and known or suspected to be infected with Ebola, MERS, tuberculosis, varicella or measles, almost all (93%) preferred a PAPR for an Ebola patient. The majority (79%) preferred a PAPR for a MERS patient. Fewer than 20% preferred a PAPR for tuberculosis (17.9%), varicella (14.3%) or measles (14.3%).

Almost all (97.1%) respondents indicated that a lightweight PAPR designed for comfortable would influence their decision to routinely use a PAPR for airborne precautions care.

When providing direct care to a patient isolated under airborne precautions, nearly all respondents (94.1%) had worn an N95/P2 or equivalent single-use mask, whereas only 26.5% had ever worn a PAPR.

The major limitation to generalisation of the findings was the sample size.

The variability in responses regarding disease-specific PAPR use is unsurprising given the ambiguity and difference in national and international guidelines and the lack of science comparing in vivo PAPR and N95/P2 mask efficiency.

The similarity between responses for PAPR use in both routine care and that involving aerosol generation is surprising given the higher transmission risks from aerosol generation. Respondents' lack of real-world PAPR use may have biased this set of responses.

Despite small numbers, this survey highlights room for improvement in preparedness for the next, inevitable, outbreak of serious infectious respiratory disease. Proper preparation includes PPE proficiency, precision and practice. Safeguarding frontline staff depends on HCWs' familiarity with and access to the safest level of respiratory protection and in a size and fit that provides protection over consecutive hours of wear. Our results suggest that for an Ebola patient, almost all HCWs believe a PAPR offers the safest protection. We look forward to a time when global recommendations align and reflect the HCW's wishes for the best and safest protection. Only then will organisations be ready for the next major outbreak of serious infectious respiratory disease.

Conflict of Interest

Associate Professor Cathryn Murphy is a casual consultant to medical industry and device manufacturers including PAFtec Australia. The findings and conclusions in this presentation are solely those of the author and do not represent the views, position or the policy of any organisation except as may be specifically noted.

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GAMA Healthcare Ltd.

acquire their Australian distributor AMCLA Pty Ltd.

GAMA Healthcare, manufacturers of Clinell and Carell, are pleased to announce their acquisition of AMCLA Pty Ltd. GAMA are world leaders in infection prevention technology and are excited to develop and enhance current service in Australia. Not only will GAMA be retaining all AMCLA personnel, they will be making significant investment: increasing support and after sales service through dedicated clinical nurse trainers and area managers.

Since 2007, AMCLA – a family owned specialist import and distribution company – have brought you world class healthcare delivery solutions through their two key sales divisions: medical and pharmaceutical. AMCLA have built a reputation for supplying innovative, high quality products to healthcare markets. GAMA Healthcare has now has acquired the Clinell division of AMCLA, including the entire workforce. GAMA aim to further enhance the medical division by bringing access to a wider range of infection prevention solutions and improved after sales service and clinical support.

Formed in 2004, GAMA Healthcare is a world leading developer and manufacturer of infection prevention products for the healthcare sector.

Our focus remains on quality, innovation and continual improvement. We work closely with our customers, identifying their needs and providing solutions to real problems. Our new and continually evolving product lines – specialising in surface care, hygiene monitoring, patient skin care and easyclean computer accessories – offer market leading solutions to infection control problems found throughout healthcare provision.

Although you may not be familiar with the name 'GAMA Healthcare', our products – marketed under the brands **Clinell, Carell and Cleanall** – are widely used in many hospitals in Australia and worldwide. In the last 13 years, we have become the largest supplier of wet and dry wipes in the United Kingdom, with at least one of our products used in every National Health Service hospital.

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Founded by two medical doctors, we are committed to infection prevention – with an ethos of making it easy for healthcare professionals to do the right thing.

We believe that after sales service and clinical support is just as important as our products and will be investing heavily in staff growth – building on existing relationships and increasing the educational support we provide.

All existing AMCLA staff will remain with the company to ensure a seamless transition and, over the next 12 months, the team will grow considerably. To support our commitment to education, we will be doubling the current workforce. We will continue to follow the highly valued UK model of appointing experienced infection prevention nurses to help you provide education and training specifically tailored to your organisation's needs.

We want to optimise every opportunity for healthcare professionals to do the right thing on every occasion; we provide effective solutions and support the training and education that underpins best practice. We look forward to working with you in the future to help you strengthen and improve your infection prevention practice.

The company name will remain as AMCLA Pty Ltd. for the next 3 months and will then change to GAMA Healthcare Australia Pty Ltd. and the head office will remain in its current location in Mornington, Victoria.

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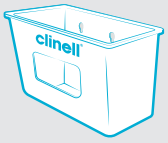

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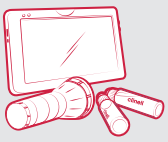

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Reducing the risk of surface damage: compatibility is crucial

Healthcare equipment helps deliver care and improves patient outcomes. However, it may pose an infection transmission risk if not adequately decontaminated[1].

Equipment used in healthcare improves patient outcomes, however if unclean and in contact with patents may pose a transmission risk if not adequately decontaminated [1, 2]. Choice of decontamination method depends on infection risk from frequency and type of contact with the item and the potentially contaminating microorganisms. Cleaning physically removes most infectious agents and organic matter but does not necessarily destroy residual pathogens. Disinfection further reduces viable organisms to safe levels and disinfectants are available as single substance or combination products that minimise risk of pathogen survival by employing multiple mechanisms but not all are effective against every form of microbe. Spores may remain viable [3] and if C. difficile is targeted, products should have proven sporicidal activity. Poor practice may result in transference of organisms from contaminated to clean surfaces [4] but also critical is that products used must be compatible with the materials they are to be used on.

A UK MHRA alert [5] highlighted damage to tympanic thermometers, patient monitors, infusion pumps and other equipment, stating that both detergent and disinfectant wipes can cause damage if incompatible with the polycarbonates and blends (thermoplastics) used for device enclosures/components in many care items used by multiple patients. Other electronic items such as diagnostic devices may be repeatedly exposed to cleaning agents and disinfectants to render them safe for the next user. While these materials are generally tough, some chemical interactions may contribute to brittle failures at relatively low stress levels. Cracked polymer housings, also known as environmental stress cracking, may occur even after only three to four months after use in healthcare environments [6].

Damaged surfaces compromise the ability to decontaminate adequately and may affect functionality. The UK Medicines and Healthcare Regulatory Authority (MHRA)[7] has taken a stance that failure to follow a manufacturer's decontamination instructions should be considered 'off-label' use and that only products sanctioned by manufacturers and supplied by employers should be used.

In order to make the process of decontamination more streamlined and therefore potentially increase compliance by being available at the point of care, the advantages in using detergent/disinfectants

as a ready-to-use wet wipe are plain to see [8-11]. Three categories of wipes exist; detergent wipes, disinfectant-only wipes and combination disinfectant/detergent wipes for the removal/reduction of microorganisms. If using detergent wipes, some organisms will remain and surfaces should always be dried after cleaning, removing more organisms and because moisture facilitates microbial growth [12]. Disinfectant-only wipes (such as alcohol) have no cleaning action and therefore prone to misuse if cleaning does not occur before disinfection. Alcohol is not sporicidal and can damage equipment (rubbers and plastics) with prolonged use [13]. In contrast, detergent/disinfectant products should air dry to allow maximum wet (and therefore active) contact between surface and disinfectant and there is evidence of further benefits of using detergent/disinfectants as a ready-to-use wet wipe [14]. Evidence shows that detergent/disinfectant wipes are more effective at reducing bacterial burden than detergent-only products – which have also been demonstrated to transfer organisms to multiple surfaces [12]. Ready-to-use disinfectant wipes have been proven to significantly increase cleaning compliance whilst resulting in more rapid and effective processes – with associated cost savings in terms of staff time [15].

It is therefore important to choose equipment that is both constructed from polymers tolerant of the agents required for safe healthcare and wipes that have maximum compatibility from a company that has worked proactively to gain equipment manufacturer approvals. When buying equipment that will need to be decontaminated between uses, the mantra should be "if you can't clean it, don't buy it".

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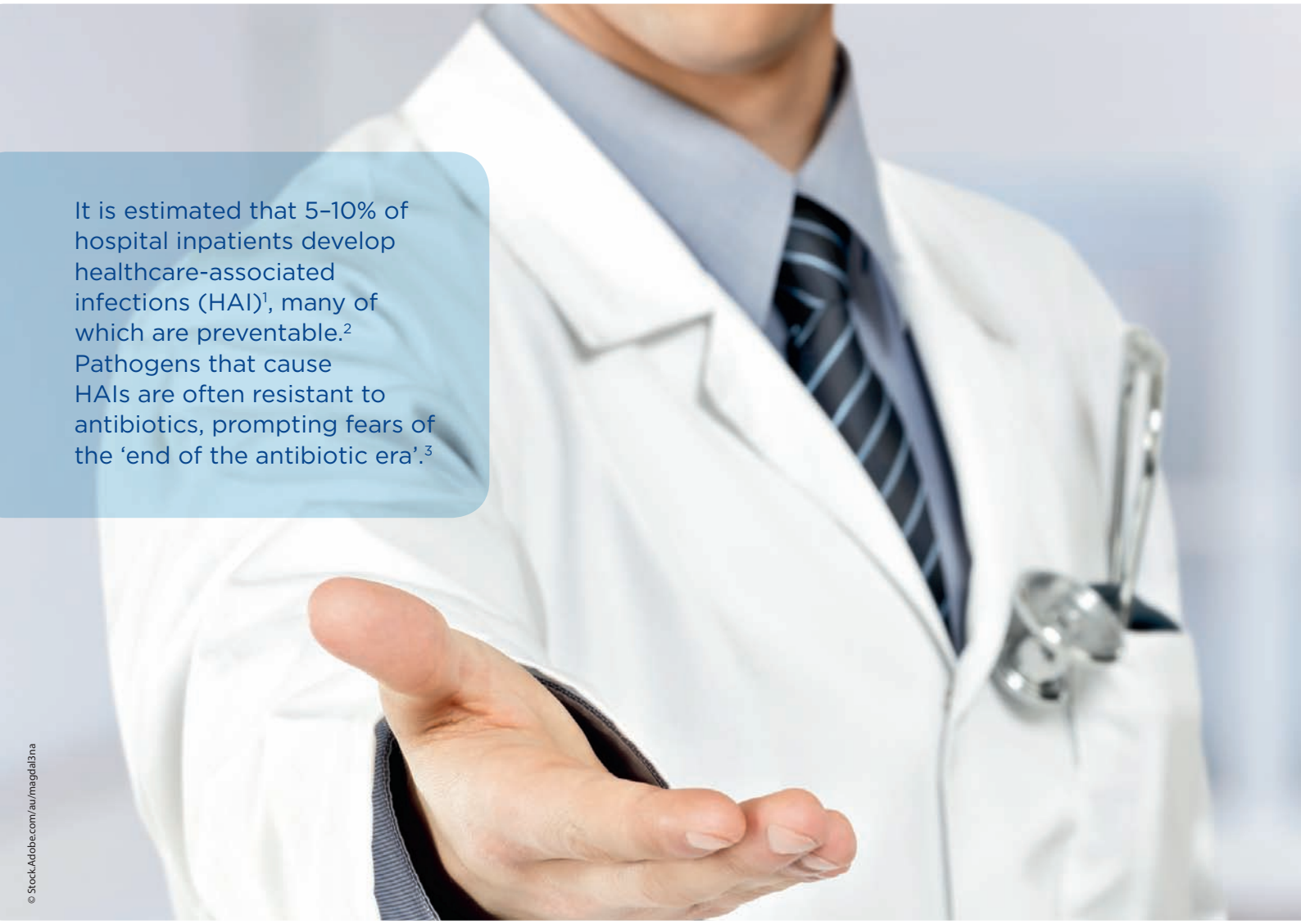
Prima non nocere — new strategies are needed to eliminate preventable healthcare-associated infections

Professor Lyn Gilbert*



It is estimated that 5–10% of hospital inpatients develop healthcare-associated infections (HAI)[1], many of which are preventable.[2] Pathogens that cause HAIs are often resistant to antibiotics, prompting fears of the 'end of the antibiotic era'.[3]

Significant differences in HAI/ABR rates, between apparently similar hospitals and units, suggest they are not inevitable collateral damage. Instead they reflect, among other things, differences in infection prevention and control (IPC)[5] practices, organisational cultures,[6] professional attitudes[7] and workloads.[8]

In Australia and elsewhere, greater awareness of HAIs among healthcare administrators and clinicians, and reduction in some HAI rates, has resulted from, inter alia, mandatory public reporting, accreditation requirements and occasional, well-publicised infectious disease outbreaks or threats. However, day-to-day experience suggests that IPC remains a low priority for many busy clinicians and healthcare organisations with competing demands for limited resources. Among clinicians, doctors are the group least likely, overall, to prioritise and comply with IPC measures.[9,10] For example, audits of hand hygiene compliance generally show 15–20% differences between doctors and nurses.[11]

In a focus group study[12] among hospital staff, non-medical participants rated doctors' hand hygiene practices as the worst. Doctors generally followed the example of senior colleagues, overestimated their compliance and were concerned that performing hand hygiene before patient contact would be negatively perceived by patients.[13] There are wide variations in doctors' compliance within hospitals, between specialties[9] and between different levels of seniority and education.[14] Senior doctors' attitudes and behaviours are the major influence on those of junior doctors and other hospital staff.[15]

Numerous interventions can, at least in the short-term, improve IPC compliance and/or reduce HAI rates,[7,16] but most studies have failed to address how they do so[15] or account for the complexity and contexts of IPC activities or barriers to sustainable improvements. Organisational factors associated with successful adoption of new IPC practices include structure (leadership, resources); culture (shared mission, values);

"Senior doctors' attitudes and behaviours are the major influence on those of junior doctors and other hospital staff."

politics (interprofessional relationships); and emotion (commitment to a shared vision).[17]

Many senior doctors are sceptical that failure to observe IPC practices causes harm; perhaps understandably, since its effects are usually invisible, cumulative and delayed. Well-designed HAI surveillance, with timely feedback of results to clinicians, can lower rates.[18,19] It is not clear how it does so, but specificity (for patient and doctor) and timeliness of feedback are important, suggesting that it promotes clinician awareness and accountability.

Further attempts to improve doctors' IPC practices must address medical practice models and beliefs, to which they are apparently antithetical. IPC practice involves habitual, rule-based behaviours, with no immediate reward or consequences of omission. Doctors often complain — sometimes with good reason — that IPC policies are unnecessarily rigid and cumbersome and efforts to enforce them are intrusive. By contrast, the medical practice model typically involves solving specific clinical problems and emphasises professional autonomy and personal achievement.

Many doctors see serious HAIs as unpredictable, rare events which they are powerless to prevent, and often attribute them to patient comorbidities or 'system failure'. They are often unaware of less serious but more common and, for patients, distressing HAIs.

Resolving these issues will require more consistent organisational commitment, senior clinical leadership and innovative strategies to increase awareness, interest and participation in IPC of whole-of-hospital communities.

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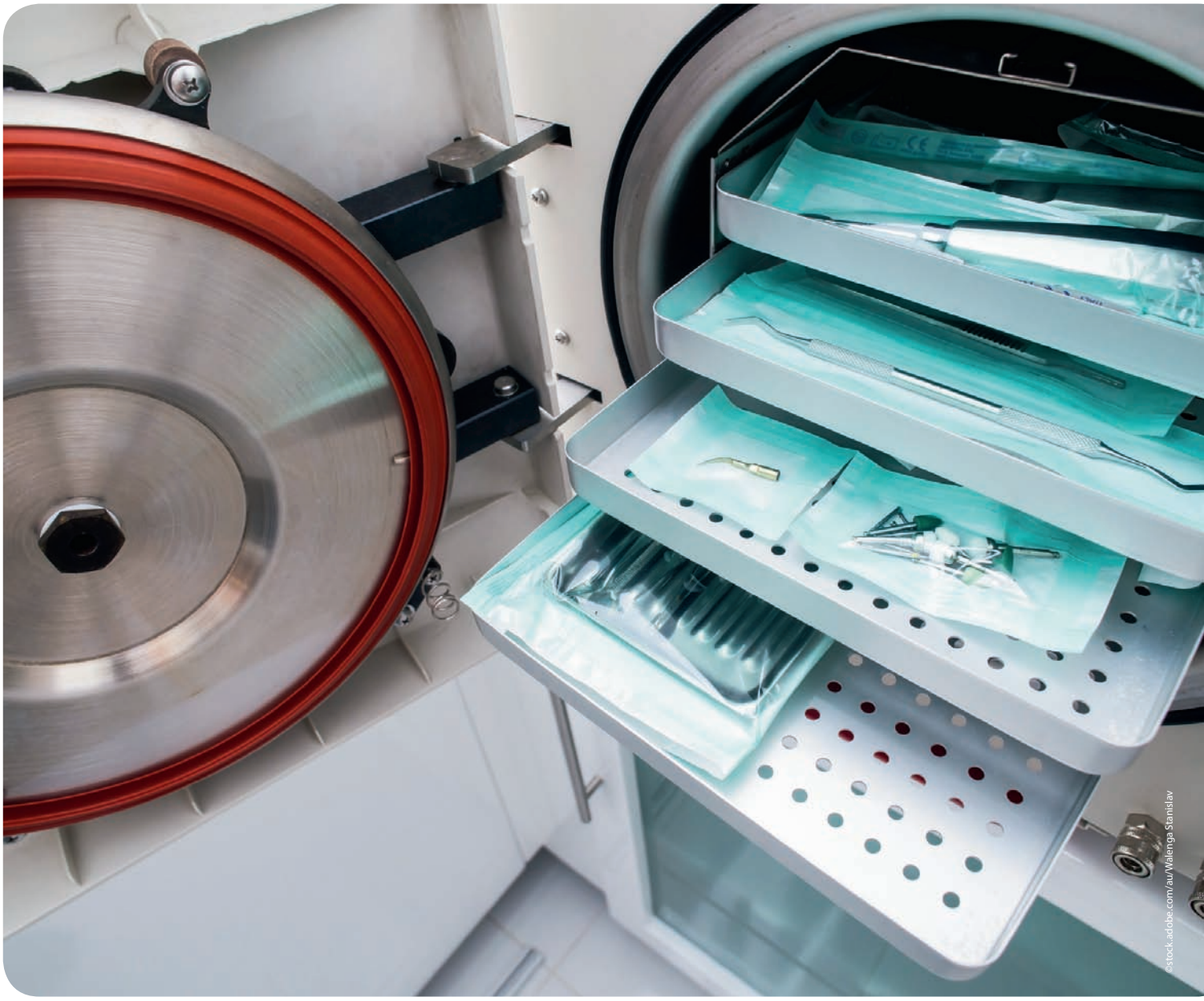

Monitoring steam sterilisation processes in hospitals

René Vis*

Steam sterilisation is the method of choice for the sanitising of medical devices within a hospital setting. The process is currently controlled and monitored by three parameters — pressure, temperature and time — and every steam steriliser is able to show these exact values.

Biological and chemical indicators and process challenge devices located inside the chamber and the individual barrier systems can be used to give additional information about the conditions during the process and prove to the user that the medical devices have gone through a sterilisation process before they open the sterile barrier system.

"Is what we have been doing for all these years still in line with the ongoing evolution of surgical instruments?"

Pockets of air act as a barrier that prevents steam from penetrating the load, so we also rely on checks like the daily Bowie-Dick. This test demonstrates proper air removal from the chamber of a pre-vacuum steriliser and indicates penetration of steam into the standardised test pack.

Additionally, a leak test is performed to ensure no air from outside the chamber is leaking into the chamber. Optionally, an air detector can be fitted to the steriliser to determine whether non-condensable gases are present in the chamber. All these tests, measuring devices and parameter values are essential to ensuring patient safety during surgical procedures.

So far, so good.

But is this enough? Is what we have been doing for all these years still in line with the ongoing evolution of surgical instruments?

We are controlling and measuring some of the vital parameters that determine the effectiveness of steam sterilisation, but we need to consider the need for controlling the presence and density of saturated steam.

As a sterilising agent, saturated steam is a balance of water vapour in a state of equilibrium between its liquid phase and its gas phase. A continuous supply of saturated steam is required for effective steam sterilisation. Excess moisture carried in suspension can cause damp loads, while too little cannot prevent the steam from becoming superheated during expansion into the steriliser chamber. On top of this there is a risk of non-condensable gasses. These non-condensable gases will not liquefy under the conditions of saturated steam sterilsation. So without the presence of saturated steam at an instrument level, it is uncertain that sterilising conditions are met.

On a regular basis, at least once a year, we validate our loads and processes. Steam quality tests are often performed once a year. During validation, thermometric tests at instrument level are used ensure that the required sterilisation conditions are achieved. The measured temperatures are checked and compared with the steam pressure to ensure there is no superheated, supersaturated steam or non-condensable gases present which affects the required temperature/time exposure. But how do we ensure these conditions in every cycle in between validations?

To date, all the test and checks described above are based upon the assumption that saturated steam is present in every process. And with that assumption we use indicators and test devices. However, those measurements are all showing the absence or presence of factors that influence the steam quality but are not telling us the one thing we really want to know: do we actually have saturated steam, and what is the density of that steam in all our cycles during the day?

We run the risk of relying upon monitoring technologies developed in the 1930s, biological indicators and the Bowie-Dick towel pack test from the 1960s. In the last 50 years, surgical techniques and instruments have evolved and become more complex. This especially applies to the mix of instruments with complex design, narrow channels and compositions of stainless steel, aluminium and plastics placed in preformed fixation within instrument trays. The physics and basics of steam sterilisation has not changed since the towel packs, but the complexity of medical devices that need to be sterilised has changed significantly.

In international standards, like EN 285, steam sterilisation conditions are two simple parameters: a predefined temperature for a predefined holding time. The pressure measured as the third value is there to verify the theoretical steam temperature (ISO 17665-1:2006, table C 1 annex C, temperature and pressure of saturated steam for use in moist heat sterilisation) and not a critical parameter. When the steam is not saturated, temperature and pressure are not related at all.

We put our trust in the three values we all know: temperature, time and pressure. Are we forgetting something?

The saturation of the steam in every processed load! This is the missing fourth dimension in steam sterilisation.

Why don't we start measuring this?

*René Vis has been working in the field of decontamination for over 30 years. He is now working for Miele Professional, where he is the Sterilisation Product Manager and the Manager of CSSD Projects International.

René was manager of CSSD from 1986–2001 at the University Medical Centre in Amsterdam and spent six years on the board of the Dutch National sterilisation association, Sterilisatie Vereniging Nederland (SVN). During this time he was an active member of the Dutch National Standardization Institute (NEN), where he led various working groups and committees. In 2006 he joined Synergy Health as operational manager CSSD and he outsourced the first hospital CSSD in the Netherlands.

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- The time-related data provides an unprecedented comfort level to caregivers who can better focus on their primary responsibility, the patient.

Cost efficiency through an effective use of the cylinder content and reduced equipment cost:

- With direct and exact information on remaining time, staff members are more confident to use most of the cylinder contents as they have a better control of the autonomy of the cylinder.
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How does it work?

When the cylinder is in use, the patented digital pressure gauge calculates and displays the time remaining in hours and minutes. No more estimations or calculations of the remaining content are required as **TAKEO_2™** cylinder provides direct intelligible information to medical staff with the remaining treatment time at the selected flow.

When the cylinder is not in use, it displays the available volume in litres. The device also features visual and audible warning alerts which indicate when critical levels are reached.

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Using Technology to Buy Technology

Rob Cook, Marketing Manager, TenderLink

Technology has always played a critical part in the delivery of health care, and has now permeated almost every aspect of general business activity for the healthcare sector. This means that organisations have to keep up with tech developments around their own core competencies, while also being aware of innovations that support the delivery of their core services.

The range of devices to diagnose, monitor or treat diseases or medical conditions continues to grow, and health professionals are increasingly required to make purchase decisions about complex technologies with which they may not be familiar.

In turn, this complexity flows through to the procurement process itself. It's not easy to satisfy the requirements of all stakeholders, while also being able to demonstrate probity and transparency. While some larger institutions may have a dedicated procurement function, in other organisations, there can often be gaps between those who understand purchasing and those familiar with the technological requirements.

Ironically, it may be a different form of technology that holds the key.

Over the last few years, procurement itself has been a beneficiary of the growth of the Internet, analytics and the smart use of data. Specialised procurement tools and systems enable organisations to cast a wide net, looking beyond their known circle of suppliers and testing the broader market for appropriate goods and services; in some cases, finding solutions they didn't even know existed.

But specialised procurement technology does much more than enable broader supplier reach. It also supports the procurement process itself, allowing buyers to better qualify their suppliers, evaluate their pricing, their product strength and their post-sale support ability.

Most importantly, where significant sums of money are involved, e-tendering technology ensures transparency and probity, not only during the tendering process, but also during the bid evaluation stage. Good evaluation toolsets force purchasers to be explicit about their requirements and their relative weightings before the tender documents go out the door. They then provide a structured and transparent format that ensures tender responses are objectively scored on a like-for-like basis.

Sure, technology alone can't treat patients or run hospitals. But it can be used to generate better procurement outcomes, while also demonstrating that the process and decisions involved were both objective and equitable. This contribution cannot be underestimated, particularly at a time of heightened public scrutiny.

Unleashing the protective power of health informatics in pharmacy

Kristin Michaels*

Vigilant, patient-centred medicines management is the backbone of high-quality pharmacy practice.

In a contemporary healthcare environment, with an ever-expanding array of treatment options and new challenges in infectious diseases, lifestyle-related diseases and cancer, clear communication among multidisciplinary care teams, and with patients and their carers, has never been more important.

There will always be human error, but utilising health informatics — technologies to improve health and healthcare — can be a powerful weapon in reducing this risk before and during episodes of care, after patient discharge or as patients move between care episodes.

For the true potential of health informatics to be unleashed, there are three elements critical to its success.

Improve provision of information at transitions of care

The ineffective transfer of clinical information after an episode of care is a common cause of treatment disruption, leading to confusion among communitybased prescribers and pharmacists, and uninformed or misinformed patients not taking the right medicines at the right time.

An Australian research study showed 12% of handwritten discharge summaries and 13% of electronic discharge summaries contained an error.

*Kristin Michaels is the Chief Executive Officer of The Society of Hospital Pharmacists of Australia, with a keen interest and experience in health system design. She is a seasoned board director in primary, acute and aged care sectors. Kristin holds qualifications in arts, organisational leadership, governance and health service management. She is a Fellow of the Australian Institute of Company Directors and is accredited as an International Partnership Broker. SHPA sits within the Australian Digital Health Agency's (ADHA) Medication Safety Program Steering Group.

In the Australian Commission on Safety and Quality in Health Care's e-Discharge Literature Scan from 2010, one paper from New Zealand identified a total of 222 medication errors across 100 discharge summaries; 13% of the errors were serious enough to cause harm or readmission to hospital.

The transition from hospitals to community-based care is a particular concern; a common complaint among GPs is that discharge summaries arrive by post after a patient's follow-up appointment — a frustration that is more frequent in rural and remote areas — and discharge summaries are often not posted to the patient's community pharmacy.

Well-implemented digital health platforms — such as the encouraging but not fully realised MyHealthRecord, which received $374.2 million in further funding over the next two years in the 2017 federal Budget — give healthcare professionals real-time access to discharge summaries and clinical information regarding episodes of care, wherever they are. On-the-spot updates ensure care teams or GPs are equipped from day one to provide excellent medicines management while avoiding unnecessary and costly processes such as repeated pathology tests.

Reduce transcription errors that result in avoidable patient harm

Transcription from paper to electronic systems, and between devices, also carries high risk of error that can result in avoidable patient harm. An Australian research study showed 12% of handwritten discharge summaries and 13% of electronic discharge summaries contained an error.

A proven safeguard is a 'closed loop' medicines management system, which reduces the possibility of errors by removing the need for manual entry and ensuring complete interoperability of all devices. St Vincent's Hospital Sydney saw prescribing errors reduced by 58% and serious medication errors reduced by 44% after implementing electronic medication management systems.

While requiring significant health sector investment, a closed loop electronic medication management (eMM) system allows clinicians to make decisions after reviewing total, up-to-date information on a patient's episode of care in one place, avoiding precious time spent chasing medication charts, patient folders and ward station computers.

Assist improved clinical decision-making

A third success factor is effectively harnessing digital health platforms to trigger 'checkpoints' that alert specialists to prescriptions outside usual protocol, informing better shared decision-making.

In one example, as recommended following recent inquiries into inappropriate chemotherapy dosing in NSW and South Australia that potentially led to patient deaths, oncology pharmacists and heads of medical oncology would be required to review and approve off-protocol chemotherapy prescriptions, with the appropriate approval lines to override treatment protocols before treatment can be administered.

These types of time-critical clinical decision support tools will greatly improve medication safety and are better to implement than paper-based systems due to criticality of time, while providing hospital pharmacists a better platform to influence and advise on the starting, adjusting or stopping of medicines.

Even the smartest technologies need intelligent human design; focus on these three aspects of health informatics will optimise the way hospital pharmacists practise, casting an even stronger safety net around patient-centred care.

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The true value of care

Corin Kelly

Professor Allan Fels, Chairman of the National Mental Health Commission, launched 'The Economic Value of Informal Mental Health Caring in Australia Report'[1] (Carer's Report) at Parliament House in Canberra earlier this year. This is the first time an attempt has been made to put a 'value' on informal caring for those with mental illness.

The Carer's Report was commissioned by community mental health service provider Mind Australia (Mind), in collaboration with researchers from the University of Queensland (UQ) school of public health.

The economic value of carers

Researchers confirm that it would cost governments a staggering $13.2bn annually to offset the unpaid informal care provided by around 240,000 families and friends of people with a mental illness. This is 1.7 times more than Australian governments invest in mental health services each year.

Professor Harvey Whiteford, from the University of Queensland, told *The Australian Hospital & Healthcare Bulletin (AHHB)* that Mind commissioned this research to understand the size of the population providing caring services in Australia and to look at the types of services provided, how many carers are not being supported and what the replacement cost of family carers would be using an economic model.

"The pure economic cost would require a massive commitment from government to replace that care. That's not meaning that we would want that to happen but it does show carers need to be supported to continue to provide that role which is a much more cost-effective way to have that care delivered, and it's something that the patients or consumers prefer," he said.

Mind Australia Chief Executive Dr Gerry Naughtin said, "This important report firms up what many of us already knew — that mental health carers carry a heavy load supporting people with mental ill-health."

How can carers be better supported?

Professor Whiteford believes strongly that, "Carers need financial assistance and very importantly, to feel they have the support and information they need from the clinician who is treating the mental illness of their friend or family member."

The report highlights the need for carers to feel more included when dealing with the hospital process, particularly when the person they are caring for is being discharged.

Judy Burke is a carer and founder of Sanctuary, a support group in South Australia

for carers of people with a mental illness and borderline personality disorder (BPD).

Burke spoke with *AHHB* about how not being included in the hospitalisation and discharge process can impact a carer.

“It makes us angry, we feel let down, and being ignored during the discharge process is strange because the patient, our loved one, is nearly always being sent back home to us,” she said.

“Carers have so much information to give. We are with our loved one most of the time so we know them intimately and we can recognise when they are becoming unwell. We also know the factors that will make their condition worse. So it makes sense to me that we, the carers, should be involved as much as possible in the conversation,” Burke explained.

Burke continued, “There will be factors that arise around confidentiality and disclosure that sometimes make it hard for hospitals to have that conversation with a carer. However, nursing staff and clinicians need to understand that keeping a careful, considered line of communication open is vital to supporting the carer who is desperate with worry about their loved one in hospital.”

This is a view shared by Professor Allan Fels. “I am a carer myself and my daughter has schizophrenia. In most cases, carers have a deep, lifelong knowledge of the person they are caring for and anything professionals can do to harness the support of carers is likely to be very productive,” he said.

He goes on to explain, “Professional services are highly valued and essential but professionals are not available 168 hours per week. Carers are typically available all the time. Carers who are close to the person they are caring for can do an excellent job managing their emotional needs.

“When a person is discharged, they need help getting access to the right services and their carer is usually the one to facilitate this. Their carer is also typically alert to signs that the person may require further treatment. If hospitals discharge a patient without considering where they are going, this can lead to the good work of the hospital being quickly undone. The best way to ensure that discharge planning is done well is to involve carers,” said Professor Fels.

Young carers

The Carer’s Report highlights the largely unrecognised number of young people caring for a person with mental illness. Professor Whiteford feels the impact of these statistics is not yet fully understood.

“We often think about carers as being the spouse or the parents of an individual. There are a significant number of young people, even teenagers, caring for a single parent with mental illness,” he said.

“The size of this group is unrecognised and these children and young adults are not being adequately supported. Safety nets are in place through the education system to support children with a parent who has a physical illness or if a child is at risk of abuse but these safeguards do not currently exist for a young person caring for a parent with a mental illness,” he shared.

“One of the young men who spoke at the launch of the report at Parliament House said his mother had schizophrenia and he would have to come home from school because something had happened to his mum. His educational trajectory was interrupted because of this.

“While we know that young people who are caring for a person with mental illness face increased risk of mental illness themselves, we have not addressed the size of the problem in relation to the impact it can have on a young person’s future,” he said.

Dr Naughtin from Mind agrees, “Too many of these dedicated people (carers) have to give up jobs, social connections and sacrifice their own lives to care for their loved one, and while this should be acknowledged and respected, it takes a great toll on their own lives.”

What will be the outcome?

Professor Whiteford believes more must be done to care for the carers. “Carers want to continue providing support to their loved ones and most of the consumers receiving the care say ‘we want care from our family and not a paid employee’.

“For carers to continue to provide this level of support we need to acknowledge their value by providing enough financial and emotional assistance to allow them to continue to do so long-term and special consideration needs to be given to young people caring for a person with mental illness,” he said.

Professor Fels shared his hope that “... this report will see universal recognition in Australia of the economic value of carers and government translation of that recognition into stronger support”.

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Professor Alan Fells.

Professor Harvey Whiteford.

The Royal Brisbane and Women's chooses wisely to improve patient care

The Royal Brisbane and Women's Hospital (RBWH) is one of a number of leading Australian hospitals working to reduce duplicate or unnecessary healthcare practices as part of the Choosing Wisely Australia initiative.

Choosing Wisely is a global social movement, operating in more than 20 countries, which aims to eliminate unnecessary or low value tests, treatments and procedures based on the latest medical evidence. It's also about promoting better conversations between clinicians and patients about their healthcare options.

NPS MedicineWise launched Choosing Wisely Australia two years ago and momentum for change continues to build among the health profession, health services and among consumers. A national meeting held in Melbourne on 4 May showcased the initiative's progress and achievements to 200 members and supporters.

RBWH Choosing Wisely Clinical Lead Jessica Toleman presented the latest results achieved by the hospital since becoming a Choosing Wisely Australia Champion Health Service in November 2016.

"Choosing Wisely has gained serious momentum across RBWH," Toleman said.

"We are challenging all facets of the organisation to think differently about the way we care for our patients and have identified more than 130 initiatives that address low value approaches.

"Hospitals can be intimidating places and it's easy for patients to assume they have to have every test and treatment their doctor suggests. For clinicians, it's easy to fall into the habit of ordering tests and requesting treatments simply because they can."

Toleman said an education campaign for surgical staff around the options for incisional local anaesthetic infiltration — a

"We are challenging all facets of the organisation to think differently about the way we care for our patients."

Jessica Toleman.

Bupivacaine with Adrenaline combination compared to the single agent Ropivicaine — highlighted the majority of patients didn't need the combination treatment. In addition to reducing a patient's exposure to agents they don't necessarily require (ie, adrenaline), Ropivicaine has reduced adverse effects compared to Bupivacaine and is lower cost.

RBWH has also been trialling a new Fasting Clock — a simple visual aid for patients, nursing, allied health and medical staff — that provides clear instructions on fasting times for food and fluids prior to surgery. This project has been shown to reduce the time that patients fast, and how hungry and thirsty they feel, and will be extended to all surgical wards next month.

In addition to the identified initiatives, RBWH has made a further commitment to Choosing Wisely by including it in their performance framework, hospital orientation and role descriptions.

"A statement appears in each and every one of our job descriptions which clearly identifies us as a Choosing Wisely organisation," Toleman said. "Already we're seeing a reduction in duplicated care, as well as better communication between different specialities."

NPS MedicineWise CEO Dr Lynn Weekes said: "Choosing Wisely Australia has reached an important milestone by demonstrating strong early results in its first two years.

"This reinforces the long-term potential of Choosing Wisely to significantly change the mindsets and behaviours of health professionals and patients — to successfully challenge the notion that 'more is better' when it comes to managing a person's health," Dr Weekes said.

"Implementation of recommendations across the health sector and the community is key to achieving change."

Choosing Wisely Australia is supported by 29 specialist colleges, societies and associations, and eight health services, and has a strong consumer advocacy base. There have been 133 recommendations released to date around tests, treatments and procedures that should be questioned.

Find out more about how to become a Choosing Wisely Champion Health Service by visiting www.choosingwisely.org.au/members/whats-involved.

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Addressing the physical health of people living with mental illness

Gabrielle Maston*, Dietitians Association of Australia

The statistics are dire when it comes to the average life span and quality of life of people living with mental illness. Australian research shows that those living with a serious mental health condition can be two to three times more likely to suffer from type 2 diabetes and four times more likely to have cardiovascular disease[1,2]. They also have double the mortality risk of the general population[3].

People living with mental illness need to take care of their physical health through healthy eating and exercise, just like everyone else. Perhaps more so, given their increased risk of chronic disease and multiple confounding factors that contribute to poor health. These include excessive weight gain due to psychotropic medications, lack of motivation, drowsiness and fatigue arising from medications or caused by the condition itself. Due to these factors, low levels of physical activity, substance abuse and poor eating patterns can occur, further impacting on physical health.

*Gabrielle Maston is an Accredited Practising Dietitian and Exercise Physiologist based in Sydney. Gabrielle's passion is helping people lose weight, excel in sport and manage chronic disease by regaining their health through proper nutrition and exercise.

Addressing chronic disease prevention in this cohort can be challenging. They are often stigmatised, can be poor at keeping appointments, inconsistent with behaviours and dismissed as time wasters. But with a little persistence, empathy and patience, people living with mental illness can move leaps and bounds with their physical and mental health.

By improving diet and exercise, side effects and complications of these chronic conditions can be reduced. Accredited Practising Dietitians (APDs) and Accredited Exercise Physiologists (AEPs) are best placed to provide this support.

To complement diet and exercise advice, psychologists can provide evidence-based psychological interventions for mental health conditions, as well as helping people change their lifestyle behaviours that contribute to lower quality of life and chronic disease.

These allied health professionals are well placed to provide patient centric care, which focuses on behaviour change that utilises motivational interviewing skills to provide the most benefit for patients. They are also well placed to provide long-term treatment, which can follow a patient throughout different phases of life. This enables practitioners to provide support and consistent monitoring. A referral to one practitioner could be an important gateway to achieving access to a range of health services that addresses all areas of their life.

Medicare has several pathways to care through allied health professions which can assist patients living with mental illness to improve their physical health. This includes 10 visits to a psychologist under a Mental Health Plan and/or a referral to an Accredited Practising Dietitian and Accredited Exercise Physiologist under a Chronic Disease Management Plan for a further five visits.

In recognition of the importance of integrated, holistic healthcare for people living with mental illness, the Dietitians Association of Australia, Exercise & Sports Science Australia and the Australian Psychological Society have issued the joint position statement ‘Addressing the physical health of people with mental illness’.

The statement stresses that strong referral networks and collaboration between health professionals within the mental health treatment team are needed. It also underlines the importance of diet and exercise, along with psychological treatment and medical treatment, for people living with a mental health disorder.

To access the statement, check out the Dietitians Association of Australia’s media release page from March 2017.

Dietitians Association of Australia
www.daa.asn.au

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Cylinder fill pressure	20 000 kPa at 15°C
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Weight (empty)	3.5 kg
Weight (full)	4.4 kg
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In Conversation

Corin Kelly

In Conversation provides a glimpse into the life of an 'outlier' — an exceptional person going above and beyond to innovate in their field and improve patient outcomes. In this issue our guest is Sally McCray, Accredited Practising Dietitian and Director of Nutrition and Dietetics at Mater Health Services, Queensland. Sally is the recipient of the 2017 Dietitians Association of Australia (DAA) President's Award for Innovation for her research and implementation of 'room service', a five-star inspired food service model for hospitals.

Welcome Sally. Can you tell me what inspired you to become a dietitian?

I have always been passionate about food — all types of foods, new and different foods and the cultural and social aspects of food. I have also always been interested in health and fitness, so dietetics is a natural fit bringing together the two. Combining this with my personal desire to pursue a career helping people, clinical or hospital dietetics seemed a good choice for me.

How has your journey led you to become involved with the room service model?

I was a clinical dietitian for many years working across a range of areas in the hospital setting, so was well aware of the many challenges that patients face in getting adequate nutrition during their illness or treatment. I moved into management and the director of nutrition and dietetics role at Mater in 2001 and so began to have a much greater input into our foodservice system and processes. As a result, I became interested in how we could manipulate the traditional hospital foodservice model to have a greater impact on both patient and organisational outcomes. We were aware of and had seen the innovative room service model in hospitals in the USA, which is a very customer-focused environment, and so we started to look into it as a potential model for us, not only from a customer satisfaction perspective but also in terms of other potential benefits, particularly for patients in terms of their nutritional intake.

Room service has won a number of awards from The Private Hospital Association of Queensland and the response from patients has been overwhelmingly positive. Why is this program proving so successful?

Room service is a very customer- or patient-centric model. It allows patients to choose from a flexible and contemporary à la carte-style menu, at a time that they feel like eating and around their individual clinical schedule of tests and procedures in hospital. The cook-to-order model not only allows a range of menu items to be offered, not normally available on a traditional hospital menu, but it also allows a better quality of food to be provided as meals are cooked fresh, immediately prior to being served. Our menu has all-day breakfast options and hot main meal options available from 11 am. In addition to this we have a wide range of sandwiches, soups, salads, desserts and snack-type items available throughout the day. If a patient feels like scrambled eggs at 3 pm, they are able to order this. The room service model and menu caters to individual taste and meal timing preferences unlike any other hospital model. As a result, patients are happier, they eat more, we have less waste and overall food costs go down. We are lucky enough to have been recognised both nationally and internationally, receiving a number of awards for innovation, not only because we were the first hospital in Australia to implement this model, but we have been the first to comprehensively measure a range of patient-centred and organisational outcomes associated with it. Patients' improved nutritional intake is one of the greatest breakthroughs from my perspective, as this can have a significant impact on their nutritional status and recovery through illness and treatment. We have seen nutritional intake increase between 20 and 30% and average plate waste decrease by 17%. Recent research has shown that 32% of hospital patients are malnourished and that one in three of these patients eats less than 25% of food that they are offered. This model may help us address this significant issue of malnutrition and poor nutritional intake in hospitals.

You have been honoured this year with the DAA's President's Award for Innovation for your work with room service. Was that a surprise?

It was a lovely surprise. It is always nice to be recognised with awards, but to

"Room service is a very customer- or patient-centric model."

be recognised by your professional association and peers is certainly an honour. I have been a member of DAA and an accredited practising dietitian (APD) for over 20 years so it is an important part of my professional identity. There are a lot of innovative dietitians out there doing lot of creative things, so receiving this award has been an honour. It is also a great opportunity to increase awareness of the model and our findings so that hopefully others can consider this model for their healthcare organisation and the potential benefits for their patients. The more patients who can benefit from this change to the traditional hospital foodservice model, the better.

What do you think are the key ingredients for innovation?

I have always been drawn to innovation and pursuing the question "how can we do it better?" Rather than asking why, I always try to ask why not? I think the key ingredients for innovation are an open mind, consistently seeking to improve systems and processes, and sometimes looking outside your immediate environment and possible limitations to see what others are doing. Of course it can take a fair bit of patience and persistence and the ability to consistently challenge the doubters! Our innovation and research was a result of significant collaboration between many people — our nutrition and dietetics and foodservices teams work very closely together with each other and also with our academic and industry partners. Above all, though, I think that an innovation never really reaches its full potential unless it is shared and we are very passionate about sharing our experience and research findings so that others, especially patients, can benefit from these.

Are there plans in the pipeline to implement the room service model beyond Queensland?

We have been working steadily since 2013 to implement the model in all of our Mater facilities in Brisbane, in our public and private hospitals and across a range of our patient groups, including adult, maternity and paediatric populations. After each implementation we have measured our key outcomes — nutritional intake, patient satisfaction, waste and costs — so hopefully very soon we will have comprehensive data across all of these groups that we can publish. How widespread the model becomes across Queensland and even Australia remains to be seen, but we are certainly getting a lot of interest from our colleagues both within Queensland and interstate as well as interest from overseas in regards to our outcomes research framework.

What the 2017–18 federal Budget means for aged care

Sean Rooney*, CEO, LASA

The 2017–18 federal Budget comes as a relief after previous federal Budgets have seen cuts to aged care funding and associated programs. There are a few initiatives in the Budget that are welcomed by our industry and will contribute to improved access to services for consumers and some system improvements for providers.

Specific aged care initiatives announced in the 2017–18 Budget are as follows:

- $5.5 billion over the forward estimates to extend funding arrangements for the Commonwealth Home Support Program;
- $3.1 million in 2017–18 to improve the My Aged Care IT platform;
- $1.9 million over two years to establish and support an industry-led taskforce to develop an aged-care sector workforce strategy; and
- $8.3 million over three years for home-based palliative care, coordinated through the Primary Health Networks.

Individually, and collectively, these Budget initiatives respond (in part) to the growing demands for age services in Australia and are welcomed by our industry.

The Budget reveals whole-of-government spending on aged care to total $81.8 billion over the 2017–18 to 2020–21 period. In this context, it is interesting to note that the government spend on aged care over time ($22.3m in 2020–21) is nearly on par with the government spend on hospitals ($22.7m in 2020–21). The projected spend on aged care shows an annual growth rate of around 6% over the forward estimates. This growth is at a greater rate than both the Medical Benefits Schedule and hospitals (both average around 5% per year across the forecast period).

The federal Budget provides near-term funding stability for the age services industry, affording our industry an opportunity to reflect and participate fully in the many policy and program reviews currently underway — without fear of ongoing funding cuts. While it is welcome that the Budget has no surprises for our industry, it does little to address some of the major issues we are facing.

This point was acknowledged by Health Minister Greg Hunt in his Budget Night presentation to health industry stakeholders where he advised that the coming financial year will see a focus on aged care. There is no doubt that there is more work ahead and many issues to be considered and addressed in the coming financial year, as key reviews and initiatives currently underway (eg, Living Longer Living Better review, Workforce Senate Inquiry, Single Quality Framework, Aged Care Funding, etc) are concluded. The outcomes of these activities and impacts from a budgetary sense will no doubt feature in the 2018–19 Budget.

So, in the very near term, we have some stability regarding funding. However, as LASA has been advocating, the aged care industry needs a sustainable funding strategy to ensure sustainability for providers and accessible, affordable, quality aged care for consumers.

Given this, LASA will continue to work on behalf of our members to ensure ongoing reforms realise the intent of the aged care reform agenda, are consistent with the Aged Care Sector Roadmap and address the pressing issues of our industry.

*Sean Rooney joined LASA as its inaugural national CEO in June 2016. He has held several Chief Executive/Senior Executive roles in public, private and not-for-profit sector organisations including the CSIRO, Medicare Local Alliance and in the ACT Government.

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