BULLETIN WINTER 2016



Sustainability in Healthcare

Environmental, Societal & Financial

Infection Control

Design in Health Recycling and Sustainability

Technology

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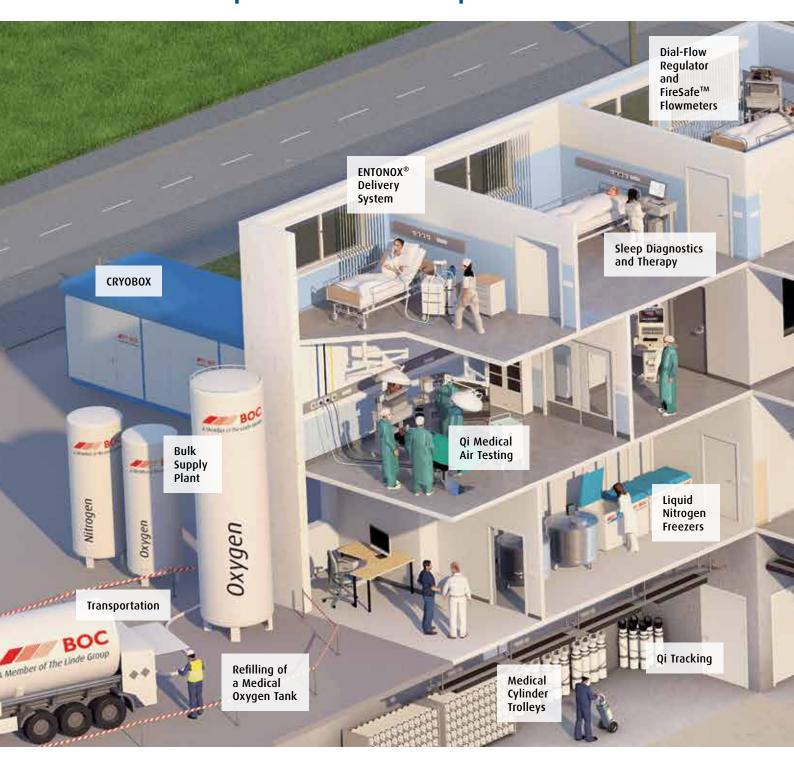
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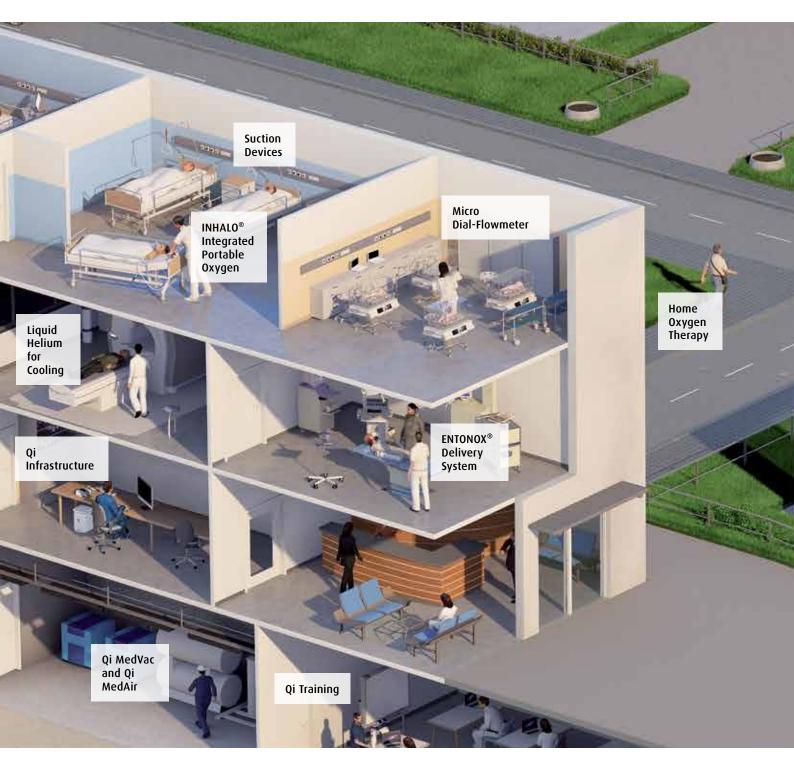
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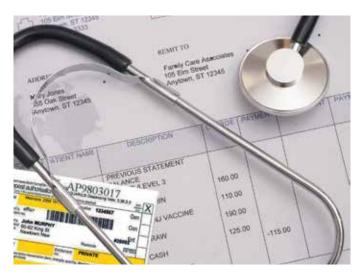






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HOSPITAL CONTENTS HEALTHCARE BULLETIN



FEATURES Design in Health



Byron Central Hospital - more than just GREEN

A great example of how combining environmental and social initiates can deliver a truly sustainable hospital.





Sustainability at Western Health - a strategic plan

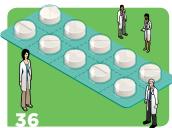
Catherine O'Shea outlines Western Health's 5 year strategic plan to be a leading health service in environmental sustainability over the next five years.



Evidence Based Hospital Design; first, do no harm

Dr Victoria Atkinson explains how a co-design process that engages staff, ensures a hospital build or refurbishment is functional sustainable and right the first time.

FEATURES Infection Control



Choosing Antibiotics Wisely

A number of the Choosing Wisely Australia recommendations relating to antibiotics are of particular relevance to hospitals and may provide a fresh angle for antimicrobial stewardship (AMS) initiatives.

FEATURES Technology



Antimicrobial Use and Resistance in Australia: New Report Findings

The Australian Commission on Safety and Quality in Health Care is developing a nationally coordinated Antimicrobial Use and Resistance in Australia (AURA) Surveillance System.



Keeping it Clean - Footscray Hospital CSSD Upgrade

Karen Tricker shares lessons learnt from the recent upgrade to the Footscray Hospital, decontamination area of the Central Sterile Services Department (CSSD).



The Politics of Health in the 21st Century - Change as friend and foe

Ramon Shaban reflects on infection control over the past 60 years and the health professional's right and responsibility to weigh-in on current global health challenges.

IN FOCUS The Rounds



Digital health innovation and where you need to be

We hear from HISA in the lead up to their July HIC conference, themed, 'Digital health innovation for consumers, clinicians, connectivity and community.



Outpatients' telehealth program is saving time and money.

Stephanie Carroll, walks us through the trial of a telehealth program being used for Post Arthroplasty Review (PAR).



Wearable Technology revolutionising the healthcare industry.

Dr Andrew Ronchi reviews innovations in wearable technology in the areas of falls detection, overexertion, rehabilitation and sleep monitoring



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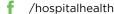


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SPECIAL FEATURES



A Day in the Life

In our Day in the Life series we take a walk for a day with Matt Cannon, Paramedic with NSW Ambulance.



Relationship-based Procurement - Building on the strengths of partnership

John Engeler discusses how relationship-reliance has been a successful procurement model for SummitCare.



Whole-of hospital occupancy management through the ED

Sharon Smith introduces us to PAPT - the Patient Admission and Prediction Tool, developed by CSIRO.



Keeping Food Safe for Residents in Aged Care Facilities

Amelia Webster explains how food borne illness happens and what can be done to prevent contamination.



Standardising on-screen medicines information for safety

The Australian Commission on Safety and Quality in Health Care explain how providing standardised and consistent medicines information in electronic medicines recording and management systems (EMM) has the potential to reduce medication errors and minimise patient harm.



Choosing Wisely at Austin Health

In the wake of the second wave of Choosing Wisely recommendations, Simon Judkins reflects on Austin Health's decision to become a Choosing Wisely Champion Hospital.



In Conversation

Professor Paolo Ferrari gives us a glimpse into his life as kidney specialist and founder of the Australian Paired Kidney Exchange (AKX) Program.



Panel of Experts

In this issue our expert panel weighs in on - Cost and the environment. Are environmentally sustainable practices in healthcare worth it in the long run?



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Sustainabil environme societal and

elcome to your Winter issue of AHHB. Sustainability has become part of the Australian vernacular. Why does a word become popular? It's a thought or idea of its place and time that gains natural momentum.

We live in a developed society fueled by exponential growth. This raises the question, 'how do we maintain this hard won standard of living while preserving and nurturing the communities and natural environment that give us quality of life?"

To help us answer some of these questions we ask industry leaders for their take on sustainability; environmental, societal and financial.

Western Health present their innovative recycling program and we catch up with Rick Rome (WSP/PB + ccrd) at Health Care Week in Sydney where he shared his experiences working with global hospitals to realise short and long term financial gains through simple energy efficiencies.

Dr Victoria Atkinson explains why talking to surgeons and staff before a hospital build can ensure its success and viability into the future.

HISA gives us a hint of things to come in telehealth and we take a look at a successful

telehealth trial run through the Post Arthroplasty Review (PAR) clinic at St Vincent's Hospital in Melbourne.

In our regular Infection Control feature, Professor Ramon Shaban reflects on the role of physicians in a changing world and we present must-read antibiotic resistance reports from NPS Medicinewise and the Australian Commission on Safety and Quality in Health Care.

In part II of our Emergency Medicine feature, Matt Cannon (Ambulance NSW) steps us through a day in the life of a paramedic, confirming why I have a desk job and we are very fortunate to have Professor Paolo Ferrari, founder of the Australian Paired Kidney Exchange (AKX) Program, as our In Conversation guest.





WANT TO CONTRIBUTE?

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The Rounds Updates in Healthcare

Persistent Critical Illness (PerCI) is really a thing Research from Monash Uni in collaboration with the Uni of

Research from Monash Uni in collaboration with the Uni of Michigan and the VA Ann Arbor Healthcare System identifies the 5% of ICU patients who are using 33% of beds. These patients have Persistent Critical Illness, or PerCl for short. While small in number, PerCi patients bounce in and out of ICU cascading from problem to problem and use a vast chunk of healthcare resources. The new findings, published in Lancet Respiratory Medicine, could pave the way for better care and tests of new treatment options to keep patients from sliding into this limbo state.





ONCOLOGY

Getting it right the first time

Personalising specific cancer treatments for cancer patients is the aim of cutting-edge research at Griffith Uni and the Gold Coast Uni Hospital.

"The current problem is that we have very general treatments that are not specific to an individual's type of cancer and these drugs are killing the good cells as well as the bad", says Professor Nigel McMillan.

The work will entail taking a small part of the malignant tumour and putting it into a mouse model. It will grow, be monitored and then treated with varying drug therapies. "By looking at the responses to different drugs on the tumour when it is outside of the patient in a surrogate, we can investigate which cancer respond well to which drugs (to) treat the patient in an individual way with the best outcome."

Griffith University



TECHNOLOGY

Fetal Pulse Oximeter Developed By Students

Monitoring a patient's blood oxygen saturation is currently clinically impossible if the patient is still in the womb. At Rice University a team of engineering students has developed a prototype device, called WombOX, that is a pulse oximeter that can be delivered inside the womb and gently attached to the arm or leg of a fetus. A nitinol wire loop is compressed inside the delivery sheath. Once pushed out and exposed to the heat of the body, the nitinol expands and the loop opens up. It is then wrapped around the arm or leg of the fetus and tightened. LEDs work along with a light detector to sense blood oxygenation. It can be brought back into the sheath and removed following a procedure.

TECHNOLOGY

Life saving phone-tophone technology scoops international prize

An emergency mobile phone system developed at Flinders University by Dr Paul Gardner-Stephen, has won a prestigious international award for post-disaster relief work in the Pacific. The free Android mobile phone system called Serval Mesh provides cellular-like communications in the absence of cellular signal or internet. Serval Mesh is a software suite enabling off-the-shelf Android phones to perform infrastructure-free, peer-to-peer voice, text and data services. Dr Gardner-Stephen said the \$279,000 prize will be put to good use. "The award funding will be used to make technical improvements so that the Serval Mesh is even easier to use," Dr Gardner-Stephen said.



RESEARCH

New material could protect dry skin and deliver drugs

"It's an invisible layer that can provide a barrier, provide cosmetic improvement, and potentially deliver a drug locally to the area that's being treated. Those three things together could really make it ideal for use in humans," said Daniel Anderson, an associate professor in MIT's Department of Chemical Engineering.

The material, a silicone-based polymer that could be applied on the skin as a thin, imperceptible coating, mimics the mechanical and elastic properties of healthy skin. In tests with human subjects, the researchers found that the material was able to enhance skin hydration. This type of "second skin" could also be adapted to provide long-lasting ultraviolet protection, the researchers said.

Massachusetts Institute of Technology (MIT)



ORTHOPAEDICS Revolutionary wrist fracture An innovative new device which will help wrist fractures heal faster and can be fitted more easily by surgeons has been developed, and will be manufactured, in South Australia. The VRP 2.0 (Volar Radius Plate) is a joint project between the University of Adelaide's Institute for Photonics and Advanced Sensing (IPAS) and Austofix, an Adelaidebased medical device company specialising in medical devices. The device design includes an improved locking mechanism for the plate and an increased variable angle for the screws, which means surgeons can get a better hold on the wrist bone, leading to quicker healing. The VRP 2.0 will be launched by the end of the year, and is expected to be suitable for treating 90 per cent of all wrist fractures. The University of Adelaide



RESEARCH

Hold the glutamine

Research School of Biology researchers have found a vital supply route that cancer cells use to obtain their nutrients, in a discovery that could lead to new treatments to stop the growth of tumours. The research team blocked gateways through which the cancer cell was obtaining the amino acid glutamine and found the cells almost completely stopped growing. The results are published in the Journal of Biological Chemistry.

"It is an exciting time to do cancer research. We now have precision tools in our hands to manipulate the genome of cancer cells, allowing us to address problems that were difficult to solve previously," said lead author Angelika Bröer. Now the importance of glutamine gateways have been identified in cancer, the hunt is on to find drug treatments that will lock them down and kill the disease.

Australian National University (ANU)

NURSING

Nurses are most trusted and honest yet overlooked by govt.

Nursing has been rated the most ethical and honest profession in Australia for the 22nd year in a row, according to the 2016 Roy Morgan Image of Professions Survey. NSW Nurses and Midwives' Association (NSWNMA) General Secretary, Brett Holmes. welcomes the news but echoed concern from members that "the NSW government advised of its intention to remove the requirement to have at least one registered nurse on duty 24/7 in aged care facilities where there are residents with high care needs." He believes this is a "recipe for disaster in NSW, promoting a dangerous model of care that permits completely untrained staff to manage patients with complex care needs."

NURSING

Life Hacks for Nursing

Have you been following our new digital series, 'Life Hacks for Nursing'? This ten part series offers up tips and clever solutions to the problems nurses face everyday. So far we have taken the sting out of needlephobia, helped you to avoid lifting injuries and sore feet and hacked solutions for IV insertion on fragile veins. There is more to come so visit our website and Facebook page.

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Sustainability in Healthcare

In this **Design in Health** feature we bring you practical insights and innovations from leaders in the area of sustainable hospital design.



FEATURES

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Byron Central Hospital - more than just GREEN

Healthcare operators are increasingly embracing the trend towards environmentally, socially and financially sustainable hospitals, recognising the positive impact it has, not only on the environment but also on patients, staff and the wider community.

n the health space, this can mean integrating views to nature to reduce patient recovery times, carefully planning way-finding to improve staff morale or engaging with local schools to support learning.

The recently completed Byron Central Hospital at Ewingsdale is a good example of combining environmental and social initiates to deliver a truly sustainable hospital. Brookfield Multiplex completed Byron Central Hospital earlier this year. It incorporates a range of green principles to provide an important piece of social infrastructure to the Byron Shire community and the many visitors to the area.

Byron Central Hospital brings together a variety of enhanced acute care and integrated community based services including nursing, allied health, mental health and drug and alcohol services.

Designed by architect Nettleton Tribe, the 9,400 square metre complex comprises a three-building hospital complex with 43 overnight beds, 20 non-acute mental health beds, a spacious maternity unit with three birthing rooms, four oral health chairs, naturally lit chemotherapy unit, and extensive ambulatory care clinics and consultation rooms.

It also includes a 14-bay, 24-hour emergency department with an additional four drop off bays for immediate hospital access, as well as a 54 space public car park.

"This is a positive project for the Byron Shire and a fantastic opportunity for us to deliver long-lasting benefits to patients, staff and the wider community. Part of that has been making sure we squeeze as much sustainable value out of the project as we can – be it greater operating efficiency, more local jobs or enhanced environmental outcomes," said Mr David Ghannoum, Regional Managing Director of New South Wales at Brookfield Multiplex.

"On the environmental side, we are delighted to have achieved more than a 10 per cent improvement in energy efficiency on what was originally deemed to satisfy the requirements of the Building Code of Australia by applying environmental features such as solar panels, sunshades and high performance double-glazing on all windows," he said.

The Hospital features a range of sustainable elements. It has been fitted with a Building Management System (BMS) to control and monitor mechanical and electrical equipment performance including ventilation, lighting and power systems. The use of natural ventilation was maximised where possible. As an example, birthing suites feature reed switches to doors that switch off mechanical systems when doors are opened, eliminating the need to run expensive systems when they are not occupied.

This system extends to motion detectors positioned in less frequently occupied areas such as toilets, as well as energy efficient external lighting controlled by timers.

Large outdoor spaces were also constructed to encourage outside working and activities for both patients and staff. Drought resistant landscape planting was undertaken to minimise irrigation.

To promote staff and visitors cycling to the hospital rather than driving, new bicycle racks and showering amenities were also installed on site.

Other green initiatives include best practice PVC use, energy saving Variable Speed Drive (VSD) pumps and insulation of refrigerants and chillers comprising zero Ozone Depleting Potential (ODP). In addition, the use of solar hot water will reduce the total energy input to the gasfired hot water generators.

Beyond green features, many social programs have been implemented to ensure the hospital leaves a lasting legacy in the Byron Shire. For example, an indigenous trainee program employs eight local indigenous people undertaking a Certificate II in Construction Pathways at TAFE, and gaining on the job training at the Byron Central Hospital project.

Brookfield Multiplex also ran a safety poster competition with local schools to educate and inspire young people, and raised tens of thousands of dollars for the Hospital Auxiliary and local charity 'Our Kids'.

"Supporting the community and helping to achieve long-term social change is a vitally important component of sustainability, and one we take seriously with our projects," said Mr Ghannoum.

"When you have a building like Byron Central Hospital that ticks all of the environmental boxes and has a positive impact on the local community too, then you have a building that will truly sustain the community for many generations to come." he said.

"When you have a building like Byron Central Hospital ... you have a building that will truly sustain the community for many generations to come".







Byron Central Hospital SUSTAINABLE ELEMENTS

Facade: natural ventilation, glazing and supplied

Hydraulic: solar hot water.

Electrical: motion detectors in low occupancy areas, timers and energy efficient lighting.

Mechanical: high performance chiller, VSDs on pumps, BMS system for building control.

Materials: low VOC materials, Zero Ozone Depleting Potential (ODP) insulation and refrigerants to the chiller.

Design: bicycle racks, outdoor spaces, drought resistant landscaping.

DESIGN IN HEALTH MARKETPLACE



Truly sustainable healthcare is more than just green

Green is a given on Brookfield Multiplex projects. But we look beyond green credentials to ensure our projects are truly sustainable and drive long-term financial and social gains alongside environmental outcomes.

rookfield Multiplex has long understood the benefits of environmentally sustainable healthcare design and has led the way in translating green design features into practical building outcomes.

On the Fiona Stanley Hospital project in WA, for example, we instigated a program to recycle 97% of site waste into usable products like compost for people's gardens. As our biggest ever project, and with some 10,000 workers engaged on site over four years, that was no small task. The United Nations agreed and gave us their BHP Billiton Environmental Initiative award in recognition of our innovative waste management strategy.

Yet as contractors we become inherently significant to communities for the duration of our projects – and we challenge ourselves to leave a lasting legacy beyond the buildings we deliver. We do this by taking a tailored approach to sustainability.

At the earliest part of a project we bring together all of the people that help to make a building a success - from the client and community to our project team, subcontractors, consultants and end user groups.

Together we focus on the desired end result; what each group wants the building to achieve from a financial, social or environmental perspective. We then work out how we can achieve those desired outcomes both during and after the build. For example, if there's a community desire to improve local employment opportunities for young people we might design a trainee program that offers hands-on learning on the project site. Or if another objective is to support staff retention then we might create opportunities for staff communication with purpose-built collaboration spaces and improved technology.

At our recently completed South East Regional Hospital in Bega we brought together and partnered with the Bega Local Aboriginal Land Council, Hunter Valley Training Company and Illawarra TAFE to design a training program that supported individual careers and had a positive impact on local employment.

Together we provided a 12 month construction based traineeship program for 20 local indigenous people, offering a diverse range of employable skills and hands-on experience working on the region's largest infrastructure project.

Additional support was provided with an onsite mentor appointed to assist trainees through the process of adapting to employment after long periods of unemployment and in overcoming issues such as low literacy.

Brookfield Multiplex is an expert in delivering leading hospital and healthcare facilities in Australia and internationally. Recent Australian projects include the \$2 billion Fiona Stanley Hospital in Perth; a \$385 million clinical research and education hub for the University of Sydney; major regional hospitals in Bega and Byron Bay; and the \$139 million University of Canberra Public Hospital, currently under construction.

Talk to Brookfield Multiplex about how we can help to achieve your social aspirations and create a truly sustainable project that will deliver enduring benefits for many years to come.





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A healthy hospital that saves money?It just requires a shift in thinking.

At the recent Hospital and Healthcare week I caught up with Professional Engineer Rick Rome (WSP/PB + ccrd). After his presentation, US Case Study: A Comparison of Two Hospitals Methods of Success, Rick and I discussed his passion for creating healthy hospitals that are both financially and environmentally sustainable.

ick has been involved in many large scale international hospital builds and expansions. He has seen both new and existing facilities realise significant cost savings through energy efficiency and in many cases it's just about a shift in thinking.

"I know it's somewhat ironic coming from the firm that has done two out of the three LEED platinum hospitals in the world, but I think too many times people involved in hospital infrastructure get lost in the paperwork and forget why they are doing this. The real reasons are that we are trying to create environments that promote patient wellness and help the caregivers operate more efficiently and we want to do this in a way that saves money," he said.

He continued, "The one real statistic that always jumps out is 'one dollar saved on energy could mean between 25 to 35 dollars of revenue that the facility doesn't have to produce. This requires a long-term view and an understanding that by saving energy you are actually doing things that will allow you to be a better health care provider."

According to Rick, energy efficiencies do

FAST FACTS

- Energy efficiencies do not only apply to new builds. Significant cost savings and environmental gains can be made in existing facilities.
- ➤ One of the chief factors in determining life cycle performance and sustainability of a building design is the building's overall energy consumption.
- ➤ The certification process is only the beginning. It is not about the piece of paper; it's about saving energy and keeping your operating costs down
- ➤ Hospitals taking simple steps towards energy efficiency will see returns in 6 months to 3 years and future proof themselves against the challenges of a competitive market.

not only apply to new builds. Significant cost savings and environmental gains can be made in existing facilities. One of the chief factors in determining life cycle performance and sustainability of a building design is the building's overall energy consumption.

"Right now," he explained, "we are working with a major health system in Toledo, Ohio and we have performed energy usage evaluations on ten of their hospitals and we compare the results with what a hospital should be doing."

"Firstly, we identify the 'low hanging fruit' or the areas where they can achieve tangible savings within a six month to two year period. And these factors are usually controls-oriented and involve adjusting set-points," he said.

Rick continued, "Say for example a hospital has an air handling unit with a discharge air temperature set-point of 9 degrees C. This can be adjusted up to 13 degrees C for a significant portion of its operating time. Running the cooling coils in these units causes significant electrical usage and cost. Many facilities set their discharge air temperature to one point and walk away. Rooms do not always need to be cooled all day to the same degree and through the use of simple software, cost savings can be realised quickly by using simple reset algorithms," he said.

Rick delivered his presentation to a rapt audience at the Hospital and Healthcare Week conference and I asked him how he chose the material for his presentation.

"We were the design engineers for the greenfield site Dell Children's hospital and the expansion of Phoenix Children's hospital in the US," he said.

"I decided to focus on these projects in my presentation because they chose different routes to demonstrate the advantages of sustainability. Dell Hospital was a new build with a large donation base that set out to show the world how the first LEED Platinum hospital could be accomplished while the Phoenix Children's Hospital used sustainability by putting energy efficiencies in place because they 'have to' in order to survive in the new world."

He went on to provide an example of how energy efficiencies were introduced to Phoenix hospital.

"Even in Phoenix Arizona, which has a very high ambient temperature during the day, there is heating required in the hospital environment. We introduced a heat pump chiller for the primary cooling equipment which then rejects the heat from the building into the heating water system which provides domestic hot water for the patients and kitchen.

It is a great heat recovery method that reduces the natural gas consumption of the facility and lowers the carbon footprint. And since we are not evaporating water thru cooling towers to reject the waste heat to the atmosphere, we saved over 24,000,000 litres of water per year. A win-win situation. It saved Phoenix Children's over \$500,000 US the first year alone," he said.

I asked Rick how important he feels the certification process is for green buildings.

"The one thing to consider with putting sustainable practices in place in a facility is to understand that the certification process is only the beginning," he said.

"When systems are installed in a hospital or aged care facility, you need to keep operating those systems in the manner they were designed to achieve results. In the end it is not about the piece of paper; it's about saving energy and keeping your operating costs down so you can spend more money on a new MRI," he explained.

Rick firmly believes that if procurement methods are capital cost driven they do not allow facilities to think long term.

"If it's all about getting it built for the lowest dollar," he said "this can have an adverse effect on hospitals' viability into the future."

Rick advises that the hospitals he sees who take a close look at how their energy is being managed and take simples steps to ensure they are working as efficiently as possible, are not only seeing financial returns within six months to three years but more importantly, they are future-proofing their hospitals against the challenges of an increasingly competitive marketplace.

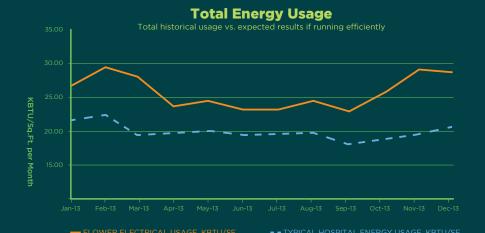
20



A Heat pump chiller room

Flower - Historical Utility Data Historical usage of electrical and gas 35.00 30.00

- AVG DAILY TEMP



Summary of systems recommendations report

System Improved	Budget Cost Estimate	Potential Energy Savings (Per Year)
Building Management System	\$72,000	\$34,000
Heating/Chilled Water Systems	\$375,000	\$110,000
Steam System	\$30,000	\$8,000
Air Handling Systems	\$200,000	\$35,000
Total	\$677,000	\$187,000
Simple Payback	3.6 years	



• Dell Children's Medical Centre Hospital

"The one real statistic that always jumps out is 'one dollar saved on energy could mean between 25 to 35 dollars of revenue that the facility doesn't have to produce."



Rick Rome

Executive Vice President, WSP/PB + ccrd

Mr Rick Rome serves as Executive Vice President of WSP/PB + ccrd and is director of the USA Healthcare Market Sector for the company. Additionally, he co-chairs the WSP/PB Global Healthcare Committee and is active in healthcare project designs around the world including the UK, the Middle East and Asia.

Mr Rome has been the Principal in Charge of over 1,000,000 square meters of healthcare facility designs over the past seven years including the King Fahad Cancer/Proton Beam Therapy Centre in Riyadh, the LEED Platinum awarded Dell Children's Hospital in Austin, Texas and the renowned Phoenix Children's Hospital in Phoenix, Arizona.



Faster, Safer, Lighter.

esigned in consultation with healthcare professionals, the revolutionary INHALO® design integrates cylinder, valve, regulator and flowmeter into a single, robust, lightweight and reliable unit.

The INHALO® features a high volume gas package which is light, easy to use and versatile. It eliminates the need for regulators, and with its plug-and-go functionality will make cylinder changeovers quicker, safer and easier - allowing you to concentrate on patient care.

BOC was the first company to develop and introduce the integrated valve cylinder to the healthcare sector. Its popularity has gone from strength to strength as customers have discovered how more efficient and convenient it is to use. These lightweight, ready-to-use cylinders have a built in pressure regulator, easy on/off handwheel and integral flow

It is designed to make cylinder operation and the task of medical oxygen administration easier for healthcare staff, as there is no need to attach a regulator. With a wide range of flow settings, you can accurately select the treatment to meet the patient's prescription. With the integrated valve cylinder, you get constant outlet pressure and flow settings to match your requirements. The cylinder has a "live" contents gauge, giving you a clear indication of contents at all times, even when the cylinder is turned off. The INHALO® is constructed from lightweight materials, making it easier and safer to handle than conventional cylinders. Using a medical oxygen integrated valve cylinder, ensures that therapy can be started right away, without any complex set-up or unnecessary manual handling for the operator.

Integral valve

- Integrated valve/regulator/ flowmeter
- Enables simple multi-functional use and eliminates the need for external regulators and flow
- Enables easier, safer and faster cylinder changeovers saving precious time
- Inhalo is completely maintained by BOC saving you costly equipment inventory & maintenance
- A wide selection of accurate flow settings (1-15 lpm) provides for a wide range of oxygen therapies

Live contents gauge

- Easy to read gauge instantly provides a clear indication of gas level at all times
- Prevents waste as cylinder doesn't need to be opened to determine contents

Design

- Ergonomic carry handle is designed to provide a balanced and safe carry point
- Robust design ensures a secure supply of oxygen
- Fibre-wrapped cylinder provides high capacity but light weight making handling easy
- Tamper evident seal provides assurance of quality and safety

Ease of use simplifies training

High capacity package

- The high gas capacity (630 litres) of the INHALO means less cylinder changes saving you
- With significantly more gas than a standard C sized cylinder the INHALO saves you space, and cost on stock holdings and delivery

Multiple oxygen outlets

- The 'plug & go' functionality make the INHALO versatile & easy to use
- Allows multiple therapies from the same cylinder, e.g. oxygen supply &/or suction device (from DIO connection)
- The multiple outlets mean the INHALO acts like a cylinder & a wall outlet at the same time

Appearance

- The INHALO has a smart, clinical look that reassures patients and enhances compliance
- Clear plastic finish allows easy cleaning and provides for better hygiene

Registration

- Medical device, AUST R 135358, 187646
- Medical oxygen AUST R 34468

Inhalo specifications

Gas code	400CD	
Gas type	Medical Oxygen E.P. Grade	
Gas volume	630 litres	
Empty weight	3.5 kg	
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	
- Diameter Indexed Outlet (D.I.O)	Also known as Sleeve Index System (S.I.S.) refer AS2896 300 ipm (max)	



For more information call us on 1300 363 103 or email hospital.care@boc.com or visit www.bochealthcare.com.au

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MRI Shielding Design is an important feature of the modern MRI suite.

In the rush to make the suite look attractive it is of paramount importance that the fundamental technical requirements are adhered to.

ut it seems that these very important and very critical issues are being overlooked.

The important issues for MRI shielding include the quality and longevity of the Faraday cage itself. This company almost exclusively uses copper shielding for medical applications and MRI shielding.

Copper shielding will last for more than 20 years when installed in a tried and proven system which is used by Faraday. This is from known data.

Furthermore, copper provides the highest conductivity. High conductivity is important because the imaging equipment generates currents in the shield and these need to be conducted back to earth efficiently to avoid image artifacts.

Additionally, during construction, it is absolutely necessary to control the electrical isolation of the shield. This is to ensure that there is only one earth for the shield, again to control the currents that will be present in the shield. This may seem minor, but if the shield

is inadvertently earthed during construction, rectification is very expensive. Alternatively, if not detected, which is often the case, poor image quality can be forever present.

Testing the shield on completion is also important. Customers are encouraged to witness this test. Some shielded rooms that have been poorly built could never have passed the initial RF commissioning test. Users suffer image quality or interference issues as a result. Faraday uses high quality calibrated test and we encourage witness testing.

Many MRIs require magnetic shielding to ensure that the extent of the magnetic field generated by the MRI is contained within a specified area. The calculation for the extent of the magnetic field for a particular installation is both complex and expensive. Normally this is undertaken by the MRI vendor for their particular magnet. Faraday offers this service and we can do the calculation to develop a solution for a site to accommodate any magnet brand.

Faraday the surest solution by any measure



Call us today to discuss your requirements on

+61 3 9729 5000 or visit www.faradayshielding.com.au

Tennant: Floor Care Solutions for Healthcare

A visitor's initial impression of a facility is typically influenced by the business' cleanliness. Poorly maintained, dirty or stained floors in high-traffic areas can be detrimental to a facility's image and profitability. In today's fast-paced society, customers demand facility's accommodate for their schedules, whatever the day, whenever the time. This has had a direct impact on cleaning programs and turn around times, particularly in healthcare.

t Tennant, we offer a variety of sustainable cleaning solutions to meet your floor care needs in healthcare. From patient rooms and hallways through to carpeted waiting areas and even parking lots, Tennant provides high performance equipment that can help reduce your cost to clean and improve environmental health and safety for your patients, staff and visitors.

Tennant has a comprehensive range of walk-behind and compact ride-on scrubbers available with innovative ec-H2O™ technology which utilises tap water, removing the need for general purpose detergents. This also results in no chemical residue left on the floors, significantly reducing slip and fall risks, and eliminates chemical scents to provide a more comfortable environment.



We have a range of walk-behind sweepers perfect for indoor and outdoor applications. Equipped with TwinMax™ sweeping technology, all types of debris can be collected including fine dust and leaf matter without the need to change brushes. Tennant's walk-behind sweepers also work exceptionally well on carpets.

Tennant also provides a complete line of carpet cleaning equipment for daily maintenance and restorative cleaning including vacuums and extractors. Tennant offers a range of backpack and upright vacuums, as well as deep cleaning extractors certified by The Carpet and Rug Institute. Using these products simultaneously with Tennant's exclusive ReadySpace® technology significantly extends the life of your carpet and enhances your facility's image.



To find out more information on how Tennant's products can be used in your healthcare facility to simplify your cleaning program please call us on 1300 TENNANT, email demo@tennantco.com or visit tennantco.com/au/healthcare

INVEST IN A COMPLETE CARPET CARE SOLUTION







TENNANT HAS EVERYTHING YOU NEED TO KEEP YOUR CARPETS LOOKING GREAT

We offer a complete line of upright, backpack and canister vacuum cleaners, well suited for both small and large areas. We also provide restorative carpet cleaning equipment including portable extractors, deep cleaning extractors and daily use carpet cleaners.

Contact us at www.tennantco.com/au/healthcare to schedule a FREE cleaning assessment!

Coregas do laboratory gases too...

Regular readers of *Australian Hospital and Health Bulletin* probably recognise Coregas as a medical gases supplier, but they do more than just that. In fact, they have been supplying Australian laboratories with their range of high purity gases and gas mixtures for over 41 years.

s a gases specialist, Coregas manufactures and supplies a range of medical, specialty and industrial gases throughout Australia, but their laboratory gases range is one of their core competencies. Available in a range of sizes from individual cylinders up to custom-built complete laboratory supply systems and cryogenic storage systems, Coregas specialises in ensuring laboratories can access the correct gases in the volumes and frequencies they require, no matter the application.

From high purity common gases such as helium, argon and nitrogen to the rarest of gases such as xenon and krypton, plus specially made multiple component gas mixtures suitable for testing and calibration uses, they work to the precise standards laboratories need for their gases, especially in the hospital environment

"We know the importance of high purity, reliability and traceability of laboratory gases, so we've organised our production, delivery and quality control system around maximising all three," says Victor Chim, who heads up Coregas' specialty gases team.

Ultra high purity gases

Many Coregas gases are available in a range of purities, but the laboratory gases range is available in purities of up to 7.0 (99.99999%), including common gases such as nitrogen, oxygen, argon, hydrogen, helium, carbon dioxide, instrument air and instrument acetylene. Their methodical approach includes carefully preparing cylinders and selecting valve materials that are compatible with the contents.

Other gases

Too large to list here, the Coregas range also includes

- Electronic gases, eg silanes, ammonia, nitrogen trifluoride, chorines and halocarbons
- Rare gases, eg neon, krypton and xenon
- · Isotopes etc He-3 and Xe-129
- Liquefied gases for labs that need bulk quantities ranging in size from 35-240 litre flasks to custom bulk installations.
- Calibration gases, from simple inert gas mixtures to the most difficult to produce moisture test gases (low parts per million H²O in CH⁴ or H²O in N²). Their range of reactive gas mixtures include CO, NO, NO², SO², NH³, H²S and Mercaptans in low parts per million or percentage levels.

Reliability

Operating one of the largest production and storage facilities in the southern hemisphere and an Australia-wide distribution network, Coregas provides a reliable supply of high quality gases under short lead times, whether locally produced in bulk or other gases sourced through their global supply chain.

Stability and accuracy

Coregas ensure stability and accuracy of their calibration gas mixtures by using:

- Only ultra-high purity gases
- Advanced thermodynamic techniques to calculate gas composition
- Gravimetric filling techniques, which produce more accurate calibration gas standards than volumetric methods because gas concentrations are not affected by temperature changes inside the cylinder during gas compression.
- Chemical testing for stability to ensure they meet the strictest requirements.



Accreditations and traceability

To prove the standards of excellence of their products, Coregas maintains 3 key accreditations

- ISO 9001: quality management accreditation for the manufacture of standard gas mixtures (batch certified): traceable to their in-house calibration gas standards, relative uncertainty ≥ ±2%.
- ISO/IEC 17025: NATA certified accreditation for the manufacture and testing of calibration gases (individually certified and prepared gravimetrically): traceable to internationally approved standards which offer a relative uncertainty of approximately ±1%
- ISO Guide 34: accreditation for the manufacture of reference material to ISO6142: the highest accredited level for gravimetrically-prepared calibration gas mixtures, traceable to National standards according to the International System of Units (SI). It offers a relative uncertainty of approximately ±0.5%.

Equipment

Coregas equipment range runs from laboratory grade gas regulators through to complete laboratory gas distribution systems and cryogenic storage systems.



Contact Coregas to find out why making them your gases specialist could be to your advantage. Coregas Pty Ltd. Phone **1800 807 203** or visit **coregas.com.au**



Sustainability at Western Health - a strategic plan

Western Health is leading the way as it maps another chapter of its journey towards improved environmental sustainability. A key strategic pillar in its new Strategic Plan (2015 - 2020) is 'operating sustainably in accordance with our social, environmental and economic responsibilities'. Western Health's objective is to be a leading health service in environmental sustainability over the next five years. Some of the ways Western Health has been demonstrating this in recent years follows.

n 2009 this journey was kick started by taking on an Environmental Sustainability Officer and taking some easy wins to improve the energy and water efficiency of their older infrastructure and waste reduction projects. However, more recently, Western Health has an increasing appetite to demonstrate leadership on environmental issues in healthcare where there is any opportunity to 'do the right thing'.

Environmental Research

Western Health currently leads the way on environmental research in healthcare, thanks to leadership and research provided by clinical champion, Dr. Forbes McGain, Anaesthetist and ICU physician. Topics of research include energy efficiency, waste and recycling, life cycle analysis (LCA) of hospital products and reducing energy associated with specific healthcare equipment and buildings.

For example, research into the use of sterilisers in the CSSD Department has enabled rotationally switching off one machine to reduce the energy impact of operations by an equivalent of 10 regular suburban homes each year. Single use dressing trays have been compared to their reusable counterpart, as have other reusable items and regular waste auditing of ICU and critical care services have revealed opportunities to recycle more.

Such research enables decision-makers to make informed decisions on critical issues that can help to minimise the environmental impact of healthcare. In fact, without such enquiry such decisions invariably default to a purely financial perspective, thereby externalising social and environmental impacts.

Local Sustainability Action Plans (LSAPs)

Local Sustainability Action Plans (LSAP) are

a key strategy in delivering outcomes within Western Health's Environmental Management Roadmap 2015 - 2020. LSAPs are developed in collaboration with Departments and Clinical Areas to identify distinct opportunities. Local knowledge (Ward; Department) is actively bridged by research and support (Sustainability Officer) to make well-rounded plans aimed at improving environmental outcomes for the whole of Western Health.

The Local Sustainability Action Planning process also offers staff with a sincere interest in environmental issues, the chance to engage in organisational objectives. An increasing number of clinicians arrive at Western Health looking for support for their ideas to improve environmental outcomes. Some are affiliated with organisations such as Doctors for the Environment, looking to make some real contribution. There is little doubt that facilitated expression of such environmental sensibility increases job satisfaction and retention of these valuable staff

Western Health employed an Environmental Sustainability Officer in 2011, which enabled it to take environmental issues in healthcare more seriously. Governance now exists in the form of a Sustainability Committee which formulates environmental management strategies and delivers reporting compliances. This team is also able to inform product procurement, tenders, education, patient/staff queries and capital development opportunities.

Waste

Since 2009, diversion of waste from landfill has risen by more than 35%. Western Health has an active waste minimisation program, having piloted and rolled out more than a dozen recycling programs in this time. 'Reuse' begins with the donation of items able to be extended in their useful life to Rotary International's

Donations in Kind Program. This partnership sees medical equipment and consumables placed in areas of third world need via the fundraising and volunteer efforts of Rotary International to cover the logistics of moving them on. An internal 'overruns' program initiated by theatre staff also sees excessive reusable consumables packaged from the Operating Theatres and sent overseas with volunteer doctors for various disaster relief.

Recycling streams include bottles, cans, plastics (hard, soft, PVC, polypropylene or sterile wrap), metals (general, aluminium foil, and PVC coated copper cabling), mattresses, batteries, e-waste, printer and toner cartridges, mobile phones, organic waste, single use metal instruments and construction waste.

Medical PVC Recycling

One of the projects that has set Western Health apart from other public hospitals acting in this space is the collaborative development of a PVC Recovery in Hospitals Program with the Vinyl Council of Australia and Baxter Healthcare. The recycling program collects specific medical PVC items (face masks, irrigation bags and oxygen tubing) for recycling at a local PVC hose manufacturer, thereby redirecting them from landfill to feedstock for the manufacturing process.

Face masks, irrigation bags and oxygen tubing are recycled in the PVC Recovery in Hospitals Program.

The collaborative, active since 2009, has led to the creation of several practical online resources that will help other health services to implement this program too. Several short films, fact sheets, FAQs and contacts for support are available to support staff taking up the challenge to lessen the impact of healthcare



on the environment. The Program has spread to home dialysis patients and is currently operating in (24 hospitals) throughout Asia Pacific and several others worldwide.

- Lower waste disposal costs for hospitals
- Recovery of valuable resources and diversion of waste from landfill
- Lower carbon footprint of PVC products - recycled PVC has one-sixth the carbon footprint of virgin resin
- · Additional benefit that other co-mingled polyolefin plastics waste can be recovered and recycled more easily.

Resources are available via the Vinyl Council of Australia and Baxter Healthcare.

'Closed loop' recycling programs such as these are the holy grail of industrial ecology because they extend the useful life of extracted resources (PVC) as they circulate through industrial systems, thereby reducing the impact on the environment, natural resources and issues associated with waste disposal. Medical PVC is of high grade and value as a feedstock to industry because it is non-coloured. Two products currently made from this medical post-consumer PVC are garden hosing and kiddy play mats.

"...(research has enabled) rotationally switching off one machine to reduce the energy impact of operations by an equivalent of 10 regular suburban homes each year."

Catherine O'Shea

Sustainability Officer, Western Health

Catherine O'Shea has been the Sustainability Officer at Western Health since 2011. During this time she has created systems of governance for environmental stewardship within the organisation and commenced a broader dialogue with other healthcare networks to discover ways to reduce the impact of healthcare on the environment. With 20 years nursing experience prior to completing a Masters in Environment and Sustainability at Monash University, Catherine brings an understanding of issues pertinent to healthcare and the natural environment. She has now spent more than 10 years in project work under the banner of environmental sustainability and is passionate about broadening the dialogue around 'care' for patients to encompass our natural environment.

Snapshot of Environmental Sustainability at Western Health

Category	Aspirational target	Results achieved
WATER	1. Reduce reliance on potable water across operations by 3% per floor area/bed-day/separation	▼ 11% reduction overall
\triangle	2. Increase collection/usage of harvested water within operations by 2.5%	▲ 2.5% increase achieved
	3. Increase staffs' awareness of ways they can contribute to water conservation at work	✓ Achieved via various staff awareness projects
ENERGY	4. Reduce energy intensity by 10% per m2 floor area/bed-day/separation	▼6% reduction overall
<u>M</u>	5. Reduce greenhouse intensity of operations by 10% per m2 floor area/bed-day/separation	▼7% reduction overall
	6. Increase staffs' awareness of ways they can contribute to energy conservation at work	✓ Achieved via various staff awareness projects
WASTE	7. 50% of staff engaged in Green Office program at WH	▲ 100% of staff engaged in the Green Office Program
क्ष	8. Reduce clinical waste generation by 10% per patient treated compared to 2012/13 volumes	→ 10% reduction target achieved
	9. Reduce waste to landfill by 35%	▲ 38% diversion from landfill achieved
GREENING	10. Include key environmental specifications for procurement of goods and/or services in all contracts from December 2014	✓ Process commenced - Commercial Contracts
	11. Formulate an organisational policy to guide sustainability in capital works by July 2014	✓ Awareness built within Capital Committee

DESIGN IN HEALTH MARKETPLACE

Instyle Insight

Reusable Curtains Provide Multiple Benefits

Textiles can play a key role in creating a healing environment both aesthetically and acoustically within healthcare facilities. Incorporating reusable woven curtains provides multiple benefits, it improves patient comfort, reduces costs, decreases waste and provides a more sustainable option to single use disposable curtains in a healthcare environment.

arol Debono, a designer with leading Australian healthcare textile supplier Instyle, spoke to several leading hospitals during the development of the company's comprehensive healthcare range. "There were mixed views on the right approach to take, either reusable or disposable curtains" says Debono.

"The increase in use of disposable curtains is largely due to concerns over infection control. However an infection control advantage would apply only to curtains that are changed immediately after every patient, particularly in high risk areas such as operating and emergency rooms. Most disposable curtains are changed every six months or so, therefore this perceived benefit over reusable curtains does not eventuate in practice."

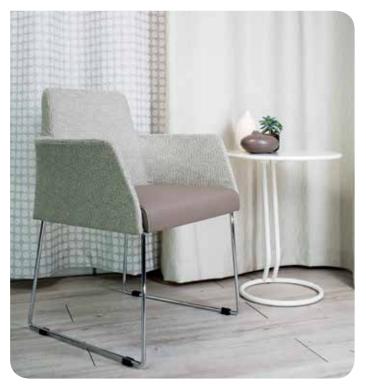
Most disposable curtain suppliers claim that the disposable approach is more cost effective. Debono says "Disposable curtains may appear to offer an initial upfront cost saving, however there is the ongoing, and potentially rising, cost of purchasing curtains for a single use and their associated disposal costs. With reusable curtains, there is a higher upfront cost of the curtain and laundering costs, however this cost is to be amortised over many years of its performance life."

The wider health benefits of using design-driven soft furnishings are not so easy to measure. Reusable curtains can play an important part in the healing process where colours and designs can be selected or customised to suit individual facilities. Instyle has designed custom reusable curtains for the likes of Royal North Shore Hospital, Austin Hospital, Sunshine Coast University Hospital and Greenslopes Private Hospital.

The research behind evidence-based design explores the real benefits of healthcare facilities that are designed around patient, family and staff needs and preferences. Healthcare facilities that are designed in a less clinical way have better patient outcomes and recovery times, thereby reducing the patient's length of stay. Many facilities are shifting from a system that focuses on disease-based care to one that recognises the importance that wellbeing of mind, body and spirit plays in health.

"We incorporated design themes of the natural elements in our curtain designs to promote patient healing, as research shows that natural scenes are a positive therapeutic distraction and are restorative" says Debono. "The physical environment is an important factor to how a patient perceives their quality of care and their overall satisfaction, which contributes to a positive state of mind."

"As the Instyle Health collection is sectioned into five key colour groups, designers and healthcare facilities find it easy to select a variety of products within a colour palette. Colour is used to improve





wayfinding so patients and families can find their destination more easily, this reduces any disorientation and associated stress in patients and families."

The increase in use of disposable curtains has led to an increase in hospital waste, with most ending up as general waste or clinical waste. Many healthcare facilities are recognising that by increasing their use of reusable textiles they can minimise waste and its associated disposal costs. Reusable textiles are an environmentally preferable choice over single use disposable curtains.

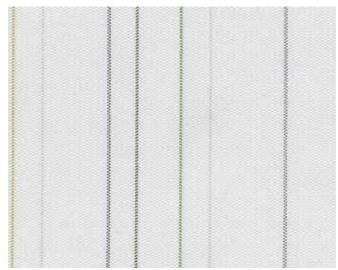


For more information please contact Instyle (02) 9317 0222 or visit instyle.com.au

TEXTILES FOR HEALING ENVIRONMENTS

A comprehensive collection of textiles + vinyls for patient care

- Curtain, Privacy Screen + Bedspread Textiles
- Crypton® Textiles
- High Performance Vinyls
- High Performance Wallcoverings
- Custom Design



ONLINE Flow - curtain, privacy screen, bedspread



REFLECT Lemon - curtain, privacy screen, bedspread



SKETCH Acacia - curtain, privacy screen, bedspread



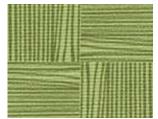
EDITION Fruity - curtain, privacy screen, bedspread



BUZZ About - vinyl



SWITCH Teams - vinyl



HATCH Generate - vinyl



GROOVE Country - wallcovering



BERLIN Moabit - wallcovering



SONIC Ultra - Crypton®



AVENGER Honeydew - Crypton®



MOD SQUAD Fresh - Crypton®



MAVERICK Lime - Crypton®



PVC RECYLING IN HOSPITALS:

AN AUSTRALIAN AND NEW ZEALAND INNOVATION

Caring for patients and the environment

The PVC Recycling In Hospitals program is a pioneering and innovative way for the healthcare system to reduce their impact on the environment. Western Health in Victoria was the first hospital in Australia to pilot PVC recycling after one of their anaesthetists noticed that too much plastic was being thrown away.

"This recycling program occurred to me when I spent a lot of my time chucking things away and watching other people throw things away" says Forbes McGain, anaesthetist at Western Health, "And it was relatively easy to find people who agreed with me that we have got to do something about it."

"At least every patient has a mask and oxygen tubing and a litre of fluid. And if we do 15-20 cases on a list, that's a lot of waste that would normally go to the bin than being recycled"

KATHERINE HODGE - THEATRE RN



As part of the PVC Recycling In Hospitals program clean intravenous fluid bags, irrigation bags, oxygen masks and oxygen tubing are all now recycled.

This unique recycling program has been a fantastic morale booster for staff, who care about the environment and are keen to bring their passion for recycling at home into the workplace.

"The impact of waste on healthcare is huge. And it's very upsetting to some clinicians that care for the environment", says Catherine O'Shea, Sustainability Officer at Western Health. "So the PVC recycling program really eases that tension for some clinicians. It makes them feel a lot better about their role in healthcare and their ability to make positive change in their workplace"

"I'm quite passionate about recycling at home so to come to work and to be able to recycle everything we use is great. It makes me really proud as a manager to see my staff taking this on board"

SIMONE COOLEY - NUM THEATRES

New Zealand takes up the challenge

Dunedin Hospital demonstrates that even without a formal environmental sustainability strategy, passionate staff and senior management support is all you need for PVC recycling success.

"I saw this as a great opportunity. It saves the environment and it's a great thing to do so why wouldn't we do it?" says Cherie McConville, Director of Performance at Southern District Health Board. "It actually helps build the evidence for an environmental strategy for our organisation."

PVC recycling is now a part of everyday practice for hospital staff and is currently operating in 9 different clinical settings.

"The PVC recycling process is completely embedded and when new staff come into the department it's very much a part of our orientation to our practice on the dialysis unit. It's just what we do"

BLAIR DONKIN, CHARGE NURSE MANAGER

Can your hospital make a difference?

The PVC Recycling In
Hospitals program has now
spread to 60 hospital sites
across Australia and New
Zealand. An average 300
bed hospital can recycle
up to 2.5 tonnes of quality
PVC every year – enough to
make up to 17 km of recycled
garden hose or matting for 3
children's playgrounds.



"We've done the hard yards but everyone who takes up the program hereafter will find it much easier. The resources are in place and it's a very easy program to take up"

CATHERINE O'SHEA, SUSTAINABILITY OFFICER

Implementation of the program is supported by the Vinyl Council of Australia and Baxter Healthcare. For more information and to register your interest, please visit:

www.recyclinginhospitals.com.au or www.recyclinginhospitals.co.nz

ANZ/MG37/16-0007



A HEALTHIER TOMORROW IN YOUR HANDS

AN AVERAGE 300 BED HOSPITAL CAN RECYCLE UP TO **2.5 TONNES OF QUALITY PVC PER YEAR!**



Find out how your hospital can make a difference with the PVC Recycling In Hospitals Program!

Visit www.recyclinginhospitals.com.au or www.recyclinginhospitals.co.nz











Evidence-Based Hospital Design: first, do no harm

Throughout their lifecycle hospitals contribute significantly to patients' illness and wellness and to the human experience of staff, patients and families. This recognition is now driving hospital design to evolve far beyond the generic boxes of old and to become healing environments which positively influence clinical outcomes.

erson-centred care revolves around enabling the relationship between patients and carer, and anything which distracts from or disrupts this relationship impacts directly on patient outcomes. Consequently, the built environment has the potential to help or hinder that relationship and to affect how care is delivered.

When designing a hospital it is easy to be distracted by the sheer scale and numbers of the macro environment, but it is in creating the right micro environment that the buildings core purpose is established and honoured; that is to enable the safe delivery of person-centred care.

Governance

Every hospital design innovation has the potential to change the model of clinical care and if not addressed during the design and commissioning process, also has the potential for great harm. Clinical governance and service re-design considerations should be introduced to the design process as early as possible.

Safe design process involves detailed mapping of the 7 flows of healthcare; patients, staff, medications, supplies, equipment, information and waste.

This process allows for the pre-emptive examination of care paradigms and the mitigation of clinical risk. Opening a hospital and expecting staff to simply adapt existing care models on-the-run is not only dangerous but will also sap the staff's engagement with their new hospital.

I give you the example of two affiliated hospitals, built across the road from each other. Naturally enough, the architects designed two large bridges to join the two partners and the service provision model was designed to share patients, staff and some operations. One of the operational decisions made was that after-hours surgery should only be performed on one campus; a logical approach. But what hadn't initially been worked through were the various governance issues this raised.

So in the context of a clinical scenario where Patient A was being wheeled across the bridge at 10pm for an emergency bowel resection, questions were suddenly being asked: Are the surgical staff cross-credentialed to allow them to assess a patient across the road? Which consent form should they use? If Patient A has had blood crossmatched at one institution was this valid when they needed the blood administered in the other institution? Could we dispense drugs from one hospital's medication chart at the other institution?

And so the questions continued to mount. If left unexplored, it is in these clinical decisions made reactively when patient and staff risk is created.

Engaging Clinical Staff

Workforce considerations are vital to an effective hospital design process. Great hospitals design decreases staff turnover and increases staff engagement with their patients and their organisation. A physical environment which enables best care will inspire staff and improve patient experience, creating a cycle of positive feedback and reinforcement.

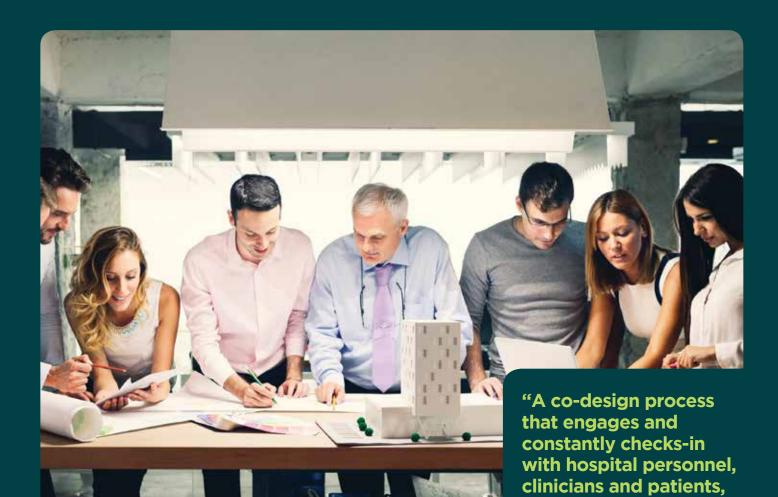
Traditionally, architects build hospitals and clinicians and patients are expected to adapt. As a clinician I have never been asked to be a part of hospital design process. At best, I might be included in a focus group or see blueprints on the wall of an operating theatre. This leads to the same frustrating list of clinical obstacles and risks being reproduced in hospitals time and time again.

Once construction has commenced, it is rare for the clinicians to have any input into schedules or plans. I have been in midoperation before when a sudden stream of building noise and dust invaded my theatre with little regard for my patient or my schedule. With a little involvement, I could have made a decision regarding rescheduling or decanting my patient to accommodate construction.

The first I knew about a major concrete pour that was happening in the floor above me was when I was half-way through sewing a patient's 2mm coronary artery and I heard a sonic boom which shook me and my operating table to its core. This began repeating every 5 seconds grinding

FAST FACTS

- ➤ Hospital design is evolving and hospitals are being built with the right micro environment in mind to enable the safe delivery of person-centred care.
- ➤ Safe design process involves detailed mapping of the 7 flows of healthcare; patients, staff, medications, supplies, equipment, information and waste.
- A co-design process that engages and constantly checks-in with hospital personnel, clinicians and patients should be the norm.
- ➤ Identify clinical leaders who are motivated and invested.
- ➤ Medical staff are a source of information and ideas; many have experienced poor design and can identify problems early on in the design process.
- Commissioning is an excellent way to engage clinicians in the build process and to ensure that clinical models are evaluated, amended and embedded before the opening ceremony.



my surgery to a halt. It was the day of the big concrete pour on the floor above and unbeknownst to me the pipe passed across the roof of my theatre.

With my patient on heart-lung bypass, I began sending desperate messages down to the pump operator. I was told the pump could not be stopped because the concrete would harden and I responded, somewhat peevishly, I admit, that it was going to be "hard concrete or dead patient." With all the dust being shaken from the rafters there was also a real risk of the patient developing a deep sternal wound infection which carries with it a 50% risk of mortality and will cost the health service hundreds of thousands of dollars.

Situations such as these are common in live-build sites in hospitals and can often be avoided by the simplest of conversations with the right clinicians.

A co-design process that engages and constantly checks-in with hospital personnel, clinicians and patients should be the norm. Surgeons, junior doctors and nursing staff are vital in ensuring a hospital build or refurbishment is functional, sustainable and right the first time.

Identify clinical leaders who are motivated and invested. Speak with junior staff, many of whom these days are completely offay with technology solutions and know the infrastructure of the hospital intimately.

Spend time and immerse yourself in the hospital culture to find out what the staff need from their new theatres and wards;

it will go far beyond the obvious. Find out what is going on in their current space and gather ideas. Medical staff have often worked in different hospitals and are a wonderful source of information and ideas; many have experienced poor design and can identify problems early on in the design process.

Poor physical environments and the scarcity of resources breed resentment amongst staff and can undermine patient care. Therefore the increased productivity and engagement of staff who feel welcomed in their new environment and better yet, feel ownership of it, cannot be underestimated.

Commissioning

Commissioning is an excellent way to engage clinicians in the build process and to ensure that clinical models are evaluated, amended and embedded before the opening ceremony.

Questions about different patient cohorts and models of care should be answered by clinicians rather than hospital executives and can influence everything from the size and configuration of the Intensive Care Unit to the location of the operating theatre lights. Clinicians are keen to share their insights about patient care and can help to co-create the best clinical environment for their particular patients.

Primum Non Nocere or first do no harm is a central tenet of medicine and it is imperative that our physical environment should reflect this notion. We must draw on both the design and clinical worlds to create hospitals which become active contributors to the health and wellness of our staff and patients.



should be the norm."

Dr Victoria Atkinson

Dr Victoria Atkinson is a cardiothoracic surgeon and the Chief Medical Officer and Group General Manager Clinical Governance at St Vincent's Health Australia. Victoria also has EDAC certification in evidence-based design from the Center for Healthcare Design and is interested in the role of hospital design in influencing measurable clinical outcomes.



Panel of Experts - The Environment

Panel of Experts is a forum for industry professionals to share their opinion on a topic relevant to healthcare. In this issue our expert panel weighs in on - Cost and the environment.

Are environmentally sustainable practices in healthcare worth it in the long run?



ELISA KNOWLMAN

Head of Healthcare Design, Peddle Thorpe

In the delivery of healthcare infrastructure, architects are commonly asked to prioritise environmentally sustainable solutions.

Some passive design measures-like building orientation, use of sustainable materials and efficient space planning-can be implemented at a low cost and contribute to reduced running costs. These measures are good design practice, offer environmental benefits, don't break the bank and are therefore worth the design effort.

Once a design starts to develop, decisions about elements such as windows, methods of heating and cooling, and water collection and reticulation, start to impact capital and running costs. They also have a great effect on whole-of-life considerations. These short and long-term impacts need to be quantified, usually expressed as a 'payback period'.

We present this information to the project owner, as they are ultimately the ones to decide the worth of these measures. The length of payback period a project owner is comfortable with will depend on factors including: their corporate policies and environmental ethos, planning horizons and project operating budgets.

Great designers often achieve ecological benefits in the pursuit of effective design outcomes. But unless a healthcare entity is committed to incorporating sustainability measures, the survival of tailored environmentally sustainable design solutions through any value management process is tenuous.



FIONA ARMSTRONG

Founder and Executive Director, Climate and Health Alliance

This question about environmentally sustainable practices in healthcare is a provocative one; it also raises other questions. What does being "worth it" mean? And what is "the long run"?

Environmentally sustainable healthcare initiatives, by their definition, intend to ensure that any impact on the environment is 'sustainable' i.e. it uses resources in such a way that they will be available over the longer term. I would argue this means 'in perpetuity'. defined as "endless duration".

It's unlikely that any of the initiatives we currently refer to as 'environmentally sustainable' meet this criteria - after all we know from the emerging literature on 'planetary boundaries' we are already in breach of several environmental limits "within which humanity can safely operate".1

Fortunately the 20,000 hospitals and healthcare services that are part of the 'Global Green and Healthy Hospitals network'2 are answering "yes it's worth it" with a resounding commitment towards safe operating spaces and shifting towards environmentally responsible, low carbon operations, while striving to improve public health and community resilience. If there is to be any "long run" for humanity, and the tiny blue planet on which we depend, there isn't any other option.

References

- Sefan W et al. Planetary boundaries: Guiding human development on a changing planet. http://science. sciencemag.org/content/347/6223/1259855
- Global Green and Healthy Hospitals Network. http:// greenhospitals.net



JACK KERLIN

Technical Director and ANZ Health Sector Leader, AECOM Australia

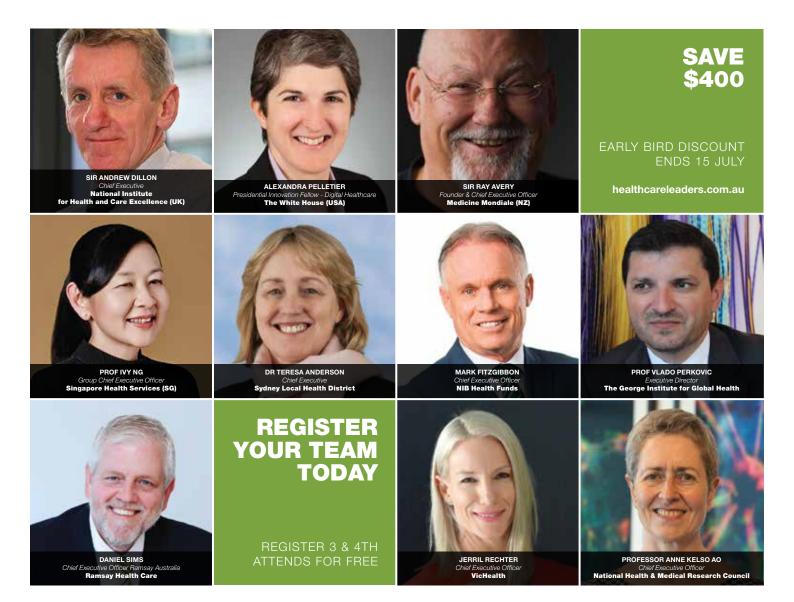
In short yes, and these should always be done with the patient and staff wellbeing as a focus. I believe that there is a trend towards considering the longer term operation of a health facility as opposed to shorter term savings. Environmental approaches are no different and should always consider the 'whole of life' cost or the payback.

The ongoing discussion of cap-ex versus op-ex is ever evolving, but these should be considered together to understand the total cost of a facility. There is rarely a comprehensive study done to confirm the extent of cost, operational savings, carbon footprint as well as other tangible and intangible outcomes. Planners, engineers and architects will all approach this in different ways so it's important that a holistic approach is taken to the design and development of a health facility to reduce the longer term operational risks.

An evidence-based approach is essential which incorporates all of these issues to enable sustainable facilities while supporting improved health outcomes.

Want to join the panel? Get in contact:

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Choosing Antibiotics Wisely

The clinician-led *Choosing Wisely Australia®* initiative has recently released a second list of tests, treatments and procedures that provide little value and may cause harm. With many of the 61 new recommendations, Australian health professionals' colleges and societies have chosen to address the inappropriate use of antibiotics.

ntibiotic use, whether appropriate or inappropriate, drives selection of antibiotic-resistant bacteria. Infections with these bacteria increase morbidity and mortality, duration of hospital stay and costs. Using antibiotics only when there is a clear indication and proven benefit is key to reducing overall antibiotic use and halting the rise in antibiotic-resistant bacterial infections.

Choosing Wisely antibioticrelated recommendations

A number of the Choosing Wisely Australia recommendations relating to antibiotics are of particular relevance to hospitals and may provide a fresh angle for antimicrobial stewardship (AMS) initiatives.

Don't initiate an antibiotic without an identified indication and a predetermined length of treatment or review date
 Society of Hospital Pharmacists of

We know from results of the National Antimicrobial Prescribing Survey that almost 1 in 4 of the antibiotic prescriptions written in hospitals are assessed as inappropriate, with the largest group of these being situations where an antibiotic was not indicated.

Several teams may be involved in a patient's hospital stay, which means documenting intentions for antibiotic therapy is hugely important to avoid unnecessarily prolonged therapy. Recent studies have indicated shorter courses of antibiotics may be just as effective as prolonged therapy for many conditions.²³ Where there is little evidence to guide duration of therapy, review dates force a fresh look at the necessity of antibiotic therapy and provide opportunity for stepdown (or step-up) based on microbiological results and clinical response.

 Do not use antibiotics in asymptomatic bacteriuria – Australasian Society for Infectious Diseases

Bacteriuria is a common finding in the elderly and in people with urinary catheters. Bacteria are acquired at a rate of 2-7% per day of catheterisation so that bacteriuria is almost guaranteed with a long-term indwelling catheter.⁴ Since the majority of cases of asymptomatic bacteriuria do not progress to symptomatic urinary tract infection,⁵ antibiotic treatment is not indicated, except in a limited number of circumstances such as pregnancy.

Performing a urine culture on the basis of malodourous or cloudy urine in the absence of other symptoms is a waste of resources and will often lead to inappropriate use of an antibiotic⁶.

Choosing Wisely Australia has related

recommendations from the Royal College of Pathologists of Australasia and the Royal Australian College of Nursing (with regard to avoiding use of urinary catheters).

 Do not take a swab or use antibiotics for management of a leg ulcer without clinical infection – Australasian Society for Infectious Diseases

Ulcers create a break in the skin barrier and over time will inevitably become colonised with one or several different microorganisms. Organisms in the leg ulcer environment often exist in biofilms, making them difficult to eradicate. A leg ulcer showing signs of infection, such as cellulitis, increased purulence and quantity of exudate, or increased local pain and temperature, needs to be treated with systemic antibiotics. However, there is no evidence that administration of topical or systemic antibiotics in the absence of clinical signs of infection improves ulcer healing.

Consider antibiotic de-escalation daily

 Australian and New Zealand Intensive

 Care Society

Infections are common in intensive care, and may be either a cause for ICU admission and/or a complication of it. Early administration of appropriate antibiotics reduces mortality for those with sepsis,¹⁰ but they are also prescribed for patients with presumed sepsis who later prove not to have infections. If there is clinical improvement, and no microbiological evidence of ongoing infection, clinicians should consider discontinuing antibiotics at the earliest possible opportunity.

We need to act now

At the March 2016 launch of the new recommendations, Professor Michael Dooley, President of the Society of Hospital Pharmacists of Australia had a timely reminder for clinicians, "What we're seeing on a day-by-day basis is that antibiotics aren't as effective, bacteria that is resistant, and a result of that we're seeing patients with life threatening infections, where in the past they were easily treated."

With the limited number of new antibiotics being discovered, action to improve antibiotic use is a critical factor in ensuring current antibiotics will still be useful and effective in the future. These recommendations, developed by the professions themselves, reinforce the efforts of hospital AMS teams to address inappropriate antibiotic prescribing in hospitals.

The latest wave of 61 Choosing Wisely Australia recommendations are available at www.choosingwisely.org.au/ recommendations

FAST FACTS

- Don't initiate an antibiotic without an identified indication and a predetermined length of treatment or review date - Society of Hospital Pharmacists of Australia.
- Do not use antibiotics in asymptomatic bacteriuria - Australasian Society for Infectious Diseases.
- Do not take a swab or use antibiotics for management of a leg ulcer without clinical infection - Australasian Society for Infectious Diseases
- Consider antibiotic de-escalation daily - Australian and New Zealand Intensive Care Society.



References

- Australian Commission on Safety and Quality in Health Care. Antimicrobial prescribing practice in Australian hospitals: results of the 2014 National Antimicrobial Prescribing Survey. Sydney, 2015.
- Richard Pugh, Chris Grant, RP Cooke, et al. Shortcourse versus prolonged-course antibiotic therapy for hospital-acquired pneumonia in critically ill adults. Cochrane Database Syst Rev 2011;10:
- Robert G Sawyer, Jeffrey A Claridge, Avery B Nathens, et al. Trial of short-course antimicrobial therapy for intraabdominal infection. New England Journal of Medicine 2015;372:1996-2005.
- Lindsay E Nicolle, Suzanne Bradley, Richard Colgan, et al. Infectious Diseases Society of America guidelines for the diagnosis and treatment of asymptomatic bacteriuria in adults. Clinical Infectious Diseases 2005;40:643-54.
- Barbara W Trautner, Richard A Hull, Rabih O Darouiche. Prevention of catheter-associated urinary tract infection. Current opinion in infectious diseases 2005;18:37.
- 6. Urinary Tract Infections. eTG complete Melbourne: Therapeutic Guidelines Ltd, 2015.
- Ulcer and Wound Management. eTG complete Melbourne: Therapeutic Guidelines Ltd, 2011.
- Garth A. James, Ellen Swogger, Randall Wolcott, et al. Biofilms in chronic wounds. Wound Repair and Regeneration 2008;16:37-44.
- Susan O'Meara, Deyaa Al-Kurdi, Yemisi Ologun, et al. Antibiotics and antiseptics for venous leg ulcers. Cochrane Database of Systematic Reviews John Wiley & Sons, Ltd, 2014.
- Anand Kumar, Daniel Roberts, Kenneth E Wood, et al. Duration of hypotension before initiation of effective antimicrobial therapy is the critical determinant of survival in human septic shock. Crit Care Med 2006;34:1589-96.



"...almost 1 in 4 of the antibiotic prescriptions written in hospitals are assessed as inappropriate, with the largest group of these being situations where an antibiotic was not indicated."

Rachel Gray

Rachel Gray is the clinical lead of the Reducing Antibiotic Resistance program at NPS Medicinewise. She is an experienced hospital pharmacist, having worked in Infectious Diseases, Cardiology and General Medicine in New Zealand. She has also worked in community pharmacy in Scotland and was involved with the development of the New Zealand Formulary. Rachel has a strong interest and passion for medicines information and education.

Are you involved in initiatives to implement Choosing Wisely recommendations in your hospital?

Would you be interested to become a pilot site for Choosing Wisely Australia? We would love to hear from you.



choosingwisely@nps.org.au



www.choosingwisely.org.au



@ChooseWiselyAU

Hospital waste management and hygiene

With 42,000* tonnes of solid waste generated from the Victorian public healthcare services in a year, it's necessary for hospitals and healthcare facilities to have an effective waste management system in place. Waste management is especially important for hospitals and healthcare facilities to help stop the spread of infections, prevent hazards with the proper disposal of rubbish and maintain a clean and hygienic area.

good waste management system does more than just store rubbish. It can help hospitals reduce business operational costs as well as create a sanitary and safe working environment for employees. For many years, Rubbermaid Commercial Products (RCP) has been dedicated to providing the best and most innovative cleaning products and solutions to its customers, helping them make this usually messy work much easier.

RCP's latest innovative product, the Slim Jim Step-On, combines durability, productivity and style to assist workers in the hospital and healthcare industry handle waste more easily and efficiently.

Blend seamlessly into any environment

Hospital and healthcare facilities often have a lot of people moving around the facility so it's important to ensure all waste is removed from walkways and prevent potential trip hazards. The Slim Jim Step-On containers are designed with a slim profile and small





footprint to minimise space utilisation by 20% and to fit in the tightest spaces, such as in waiting rooms or a nurse's office. Available in front-step and end-step styles, Slim Jim Step-On containers provide optimal solutions based on your space requirements.

Made with premium quality materials and finishes, the Slim Jim Step-On containers are able to blend into any environment seamlessly. The stainless steel option is made with unique fingerprint resistant material to help maintain a clean aesthetic without staff spending time maintaining the external surfaces.

Durability and infection control

The innovative foot pedal allows for handsfree waste disposal, reducing the spread of germs that can be caused by touching the lid of the bin. The commercial-grade foot pedal is designed for extreme durability as well as its flat design makes it easier to use and clean. Unlike other step-on containers that scratch and leave marks on walls when the lid is activated, Slim Jim Step-On containers are designed with an internal hinge to keep the surrounding walls undamaged. The products feature quiet and controlled lid-closures that minimise noise and contain odours caused from medical waste. This helps to create a more pleasant environment for patients through the reduction of noise and odours.

Manufactured with the best commercial materials, Slim Jim Step-On containers are built to outlast and outperform any other

similar products in the market even under the harshest working conditions. In addition, all RCP products are developed based on the needs of the users to maximise user experience and minimise the wear and tear from frequently used products. Hospitals and healthcare facilities can spend less time replacing their waste bins and more time on running the facility.

Improved productivity

Slim Jim Step-On containers are designed and engineered with ease-of-use in mind. Features like liner cinches and liner retainer bands help to hold polyliners easily and securely. The cinches also help to secure liners inside the bin without hanging over the edge helping to contain the waste inside the bin. In addition, the optional dual-stream rigid liner simplifies sorting, making recycling quick and easy.

An effective waste management system ensures rubbish is stored correctly to avoid potential hazards, prevents the spread of infections and helps maintain the health of the facility. Having a system that blends seamlessly into the facility such as the Slim Jim Step-on can assist to create a pleasant and hygienic environment.

Slim Jim Step-On containers are available in plastic and stainless steel, available in 5 sizes, 8 colours and two step styles.

References

*Victoria State Government 2010 - 2011 (http://www.health.vic.gov.au/sustainability/waste.htm)



For more information about Rubbermaid Commercial Products visit www.rubbermaidcommercial.com.au or call 1800 331 491



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Antimicrobial Use and Resistance in Australia: New Report Findings

Antimicrobial resistance (AMR) is a global concern. Consequently, the World Health Organization has encouraged countries to commit to comprehensive national plans to combat AMR.

MR occurs when antimicrobials which were once effective stop working against microorganisms like bacteria, viruses and fungi. As a result of AMR, standard medical treatments have become, and are becoming, ineffective and simple infections can cause significant harm. This increases the complexity of treatment and duration of hospital stay, and places significant burden on patients, healthcare providers and the health system.

While AMR to some extent is a natural phenomenon, high and inappropriate antimicrobial use has accelerated the process of increasing resistance worldwide, including in Australia.

As part of the Australian Government's AMR Strategy (2015-19), the Australian Commission on Safety and Quality in Health Care (the Commission) is advancing the development of a nationally coordinated Antimicrobial Use and Resistance in Australia (AURA) Surveillance System as a significant platform to prevent and contain AMR across all health settings.

The AURA Surveillance System's first report 'AURA 2016: First Australian report on AU and AMR in human health' (AURA 2016) includes valuable data and comprehensive analyses of AMR, antimicrobial use and appropriateness of prescribing in Australia across all healthcare settings. This report provides the most complete picture on antimicrobial use and resistance in Australia available to date and sets a baseline that will allow resistance and use trends to be monitored over time.

There is large variation in antimicrobial use between states and territories. Some of the more significant findings arising from AURA 2016 include:

Hospitals

- On any given day in 2014, around 38% of patients in Australian hospitals were receiving antimicrobial therapy. Around 23% of these prescriptions were considered inappropriate, and around 24% were noncompliant with guidelines
- Prescriptions for surgical prophylaxis are a significant concern - this indication is the most common reason for prescribing antimicrobials in hospitals (13% of all prescriptions), of which over 40% were deemed inappropriate.

Community

- Overall, antimicrobial prescribing is high in the community, with 46% of Australians being dispensed at least one antimicrobial in 2014
- More than 50% of people with colds and upper respiratory tract infections were prescribed antimicrobials unnecessarily in 2014.

Residential aged care

- In 2015, 11.3% of residents were on antimicrobial therapy, but only 4.5% had a suspected or confirmed infection
- 20% of antimicrobial prescriptions in 2015 were for residents who had no signs and symptoms of infection in the week before starting the antimicrobial.

Analysis of data has also firmly established there are a number of organisms in Australia of particular concern because of the significant impact they can have on health. For example, ampicillin resistance combined with vancomycin resistance in enterococci has emerged as an issue in Australia, with Enterococcus faecium caused serious infections showing resistance of between 45-66% to vancomycin and 83-95% for ampicillin.

AURA data analysis has also confirmed that Carbapenem-producing Enterobacteriaceae (CPE) infections are almost always highly multi-drug resistant and require 'last-line' reserve agents such as colistin, an agent with significant toxicity.

Similarly, analysis shows that between 15.8% and 17.4% of Staphylococcus aureus infections are methicillin-resistant S. aureus (MRSA). Community strains of MRSA now cause a significant proportion of infections both in the community and in hospitals.

Not all AURA 2016 report findings are adverse. Antimicrobial use in hospitals has gradually been declining since 2010, in parallel with the introduction of antimicrobial stewardship programs around this time. Australia also has low rates of resistance to fluoroquinolones compared to other countries, possibly reflecting the restricted use of this antimicrobial class locally. Findings such as these can be used to inform and support strategies to prevent and contain AMR.

A key message arising from the AURA Surveillance System is that antimicrobial use is a key driver of antimicrobial resistance - the more we use antimicrobials, the more likely it is that resistance will develop. Appropriate use of antimicrobials can be life-saving, but inappropriate use needs to be monitored and minimised to prevent and contain AMR.

The AURA Surveillance System will continue to build on the AURA 2016 report by further exploring, enhancing and reporting on a range of data collections which examine the use and resistance patterns for antimicrobials in Australia.

To learn more about antimicrobial use and resistance, and the AURA Surveillance Program, visit www.safetyandquality.gov.au/nationalpriorities/amr-and-au-surveillance-project/.

Reference

Office of the Chief Scientist. Meeting the Threat of Antibiotic Resistance: Building a New Frontline Defence. Occasional Paper Series. Canberra: Australian Government, 2013.

There are a number of surveillance programs integrated under AURA as the national system. These are:

- **Australian Group on Antimicrobial** Resistance's (AGAR) collection of resistance data
- **National Antimicrobial Prescribing** Survey (NAPS) and the pilot Aged Care NAPs (acNAPS)
- **National Antimicrobial Utilisation** Surveillance Program (NAUSP); and
- The expansion of Queensland Health's OrgTRx System to provide a national passive AMR surveillance system.

Other invaluable data sources include:

Pharmaceutical Benefits Scheme (PBS)

NPS MedicineWise

Office of Health Protection, National Notifiable Diseases Surveillance Branch

National Neisseria Network.

more than 50%

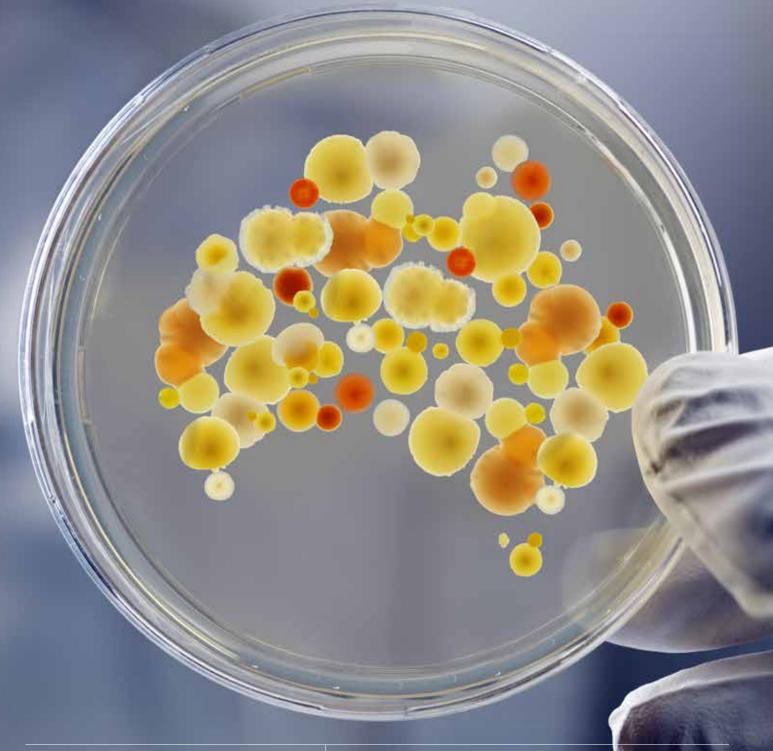
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of antimicrobial prescriptions were for people who had no signs or symptoms of infection. around 23%

of antimicrobal prescriptions were considered inappropriate.

CREDIT: AURA 2016: FIRST AUSTRALIAN REPORT ON AU AND AMR IN HUMAN HEALTH





The Politics of Health in the 21st Century - Change as friend and foe

n 22 June 1946 at the International Health Conference in New York, 61 sovereign states signed a declaration that would later give effect to the Preamble of the Constitution of the World Health Organization.¹ World War II had ended in September 1945, less than 12 months earlier; a war that, like its predecessor, changed the global landscape indelibly. This saw the emergence of two major global agencies, the United Nations (UN) and the World Health Organization (WHO).

Front and center on their agenda was the health and well-being of all individuals, globally. Today, the UN comprises 193 member states. It has one central mission: the maintenance of international peace and security.² The WHO is the directing and coordinating authority on international health within the UN's system, and comprises more than 7000 people from more than 150 countries within a network of six regional offices and global headquarters in Geneva.¹

The cost of World Wars I and II, together with the many others instances of human conflict, in societal terms, is immeasurable. Such conflict is a tragic dimension of life, and the UN, the WHO and the tens of thousands of other government and non-government organisations are part of our socio-political response. They are responses to, and effector arms of, change. The years spanning World Wars I and II marked a period of great change.

So very much has changed in health care in the 60 years since, particularly in the way we treat illness and infection, with the discovery and use of antibiotics. Antibiotics changed countless lives, and it did so quickly. No sooner had we discovered the power of antibiotics than had we also discovered that micro-organisms bear an equivalent power of their own - antibiotic resistance. The march of antimicrobial resistance is a global phenomenon, with unwelcome change in the way we can, or can no longer, treat some infections. If this is any indication of what might be in store over the next 60 years, it is not easy to predict what's to come.

Many have said that change is the only constant. This recent history serves as an important reminder of the changing and complicated contemporary world in which we provide health and medical care. How we, as health professionals, keep up with, manage and attempt to get ahead of change, occupies much of our time in practice. There are no shortages of local and global

health challenges. Poverty, poor sanitation, prevention and control of infectious disease, access to affordable health care and medicines, and conflict and war, way heavily on our minds and our everyday work. As health professionals our mandate is to respond to the needs of our patients and their communities using the best possible evidence available and the resources we have at our disposal.

History, however, has taught us that health challenges have inherent political dimensions. The reality is there are few aspects to health and health care that are, in the contemporary world, truly apolitical or free of political consequence. It is therefore important for us to be engaged in the broader conversations if we want to be part of any effective solution.

We have professional obligations as advocates for patients, which are all the more important in complicated and constantly changing circumstances. Such obligations require us to adopt a position and commit to a course of action; to contribute to the conversations and debates in meaningful ways.

Positions and actions are of course contextual to time and place, by their nature reflecting a view or outcome at a given point in time. They do not inexorably represent a binding alignment to a particular position or course of action, nor imply binding alignment (political or otherwise) with other agencies that express a similar position or course of action. Likewise, they do not represent binding disagreement with agencies that express contrary positions or courses of action.

Particular positions expressed at one time are inevitably called into question as information and circumstances change. If they didn't, and if it wasn't for individuals like Pasteur, Flemming and Semmelweiss and many others who each expressed particular positions in their time, we would all be in a very different place today. Vaccines and pasteurisation do prevent disease, antibiotics do treat infection, and infection control is fundamental to our health and wellbeing. Times change, and what we know today will inevitably be different tomorrow.

What is important is that we remain committed and actively engaged in the broader conversation. We must have the courage to lean in to the issues before us, and those issues that confront our patients and the wider community. It is important that informed discussion and debate is permitted

to occur, and that it occurs in a way that allows individuals to form their own view, however popular or not at the time, free of duress and undue influence.

Health professionals should be able to, and are expected to, express their opinion professionally when contributing to the discussion and debate. These are hallmarks of a democratic and civilised society, and of developed, informed and scholarly health professions. In doing so, we must recognise the politics of health in the 21st century, and accept that change (as both friend and foe) is the only constant in our pursuit for health and wellbeing for all.

References

- World Health Organization. About WHO. 2016; http:// www.who.int/about/en/. Accessed 28 April, 2016.
- United Nations. What we do. 2016; http://www.un.org/ en/sections/what-we-do/index.html. Accessed 28 April, 2016.



Professor Ramon Shaban

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INFECTION CONTROL MARKETPLACE



As clean as it looks?

Using Flourescent marker audits to evaluate cleaning efficacy

urrent Department of Health (UK) guidance states that surfaces in wards should be 'visually clean' and free of 'dirt, dust and debris', but when bacteria are nearly 600 times smaller than a grain of sand is this measure effective? Research has demonstrated that quantitative methods of assessing cleanliness are far superior to reliance on visual methods and are comparable with microbiological methods, which are considered to be the gold standard (Luick, Thompson et al. 2013). This

study undertook simultaneous assessment of surfaces after environmental cleaning using an invisible fluorescent marker, ATP and visual checks and compared them with aerobic colony counts. Both ATP and the fluorescent marker provided a high positive predictive value (90%) and the visual check had a PPV of just 9%. This builds on work by Al-Hamad et al. in 2008, which reported that out of 82% of sites considered visually clean, only 30% were bacteriologically clean. Fluorescent marking of surfaces is relatively

new to many parts of the world, however a number of papers from the USA have been published that indicate the potential for this as a monitoring tool (Carling, Briggs et al. 2006). Surfaces are marked with an invisible water-soluble marker and then checked for residual dye once cleaning has taken place. A recent study by Rutala (Rutala, et al. 2013) claims that "fluorescent marker is a better tool than ATP in determining how thoroughly a surface is wiped and mimics the microbiological data better than ATP".



Carling, the pioneer of UV-based auditing in environmental hygiene, demonstrated the effectiveness in studies undertaken in high-risk clinical areas in which over 50% of surfaces were found not to have been cleaned despite two patients passing through single occupancy rooms, concluding that "the use of a fluorescent marker system in ICUs in multiple hospitals resulted in 40% more surfaces being cleaned effectively".

GAMA Healthcare, the manufacturer of Clinell, the most trusted infection control wipes in the UK, are proud to introduce the new Clinell EvaluClean system. The system comes with two fluorescent marker pens, fluorescent powder, an ultraviolet (UV) torch and our brand new EvaluClean audit software which can be used as both an educational tool and a way to evaluate and audit cleanliness.

The Clinell EvaluClean system is simple. Use the fluorescent pens to discreetly mark equipment and surfaces within a room, record their exact location with the touch of a screen and after cleaning use the torch to assess whether the invisible fluorescent gel has been removed. The unique EvaluClean software quickly and easily records the efficiency of the cleaning and generates detailed reports immediately.

The Clinell EvaluClean fluorescent gel pens have been rigorously tested to ensure that they remain wipeable from all non-porous hospital surfaces. The powerful 28-LED torch has a specific UV wavelength that provides excellent mark visibility.

Our unique auditing software system is an app delivered on a tablet and is customisable and remarkably flexible to your needs. You can select the equipment and surfaces you wish to monitor from the existing database, or add and store new ones with the tablet camera. Record when and where you have marked the equipment or surface with the UV torch and then receive reminders when to check them. The app provides you with the opportunity to record the specific cleaners ID, the 'type of clean', the 'type of room' and even whether the mark has only been partially removed.

The Clinell EvaluClean software provides the user with the ability to instantly monitor hospital wide trends, compare performance against set benchmarks and generate bespoke, attractive and easy to understand reports. The powerful reporting software allows the user to filter results to specific wards, rooms, items, type of clean and room type if required.

The Clinell EvaluClean system is the most advanced and flexible method available to evaluate environmental cleanliness and it is available FREE to all Clinell users (subject to minimum spend).













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Keeping it Clean Footscray Hospital CSSD Upgrade

Footscray Hospital is one of four hospital facilities managed by Western Health in Melbourne, Victoria. The hospital provides around 290 beds, acute elective and emergency services and intensive and coronary care. Karen Tricker has been involved in four decontamination unit refurbishments with Western Health and she talked to AHHB about her role and lessons learnt from the recent upgrade to the Footscray Hospital, Central Sterile Services Department (CSSD). " n 2013/2014 the decontamination area of the CSSD at Footscray
Hospital was refurbished as it was unable to continue meeting the demand of an increasing workload from theatre and wards," Karen explains.

"The existing infrastructure was updated to maximise the usage of the space, reduce OH&S issues and ensure compliance to standards", she says.

"We needed to update our equipment to pass-through thermal washers to decrease manual handling and to redesign the space to improve the flow of instrumentation as it came through theatre."

I asked Karen about the redesign process and if staff were consulted about their wish-lists for the new space.

"Engaging the clinical staff in a redesign is critical and this is something Western Health is very good at. Bringing OH&S into the conversation is very important and in this case, the infection control department as well," she says.

"Putting the tender together was quite a process. The OH&S representative from CSSD, my grade 4 instrument tech, myself and my manager were all part of the redesign committee," Karen says.

While the work was being done, Karen needed to keep the decontamination area operational. She explained how this was achieved.

"The refurbishment was scheduled for the Christmas period which meant there was a reduced theatre load so that was helpful. We cordoned off areas where we were working and Atherton's who won the tender for the redesign and installation, put in a small washer for us to use and the other washers were used one at a time as an existing was replaced with a new washer," she says.

"It required a team effort to keep things running smoothly and we certainly needed to improvise in some circumstances. Putting on extra staff to manage the workload and the back-flow ensured that we were able to operate as normal," she says.

How did the equipment upgrade impact on the staff?

"The upgrade to equipment included the installation of three automated thermal disinfectors, a new manual wash sink, relocation of the ultrasonic and installation of bulk chemistry," Karen explains.

"A pass-through washer is loaded on one side and the item comes out thermally disinfected on the other. What we had previously was one pass-through washer and other single-fronted door washers. These washers mean staff are loading and unloading from the dirty side whereas the standards dictates pass-through items where you flow from dirty to clean," she says.

"We are one of the first hospitals in Australia to install the largest Innova washer with an automated loading and unloading system. It has a conveyor on each side that allows us to load an instrument rack at working height," she says.

"A conveyor belt moves the rack into the washer. An RFID on the washer inserts allows the machine to automatically select the correct I wash type. When the cycle is finished, the instrument rack moves out onto the conveyor and we then move the rack onto a wheelable trolley where it is decanted."

"The ultrasonic has been lowered to comply with standards so it at staff waist level to prevent over-stretching when the lid is raised," she says

"One of the best components of the equipment upgrade", Karen explains, "is the bulk chemistry." This has eliminated OH&S concerns in relation to storage and handling of chemicals. We used to have 5litre bottles of chemical that were manually attached to the washers. Now we have a safer system for chemical management and more space since storage is no longer required."

"The decontamination area is a heavy, busy department so reducing multi-handling of the same item and not having the chemistry to worry about has made a huge difference to the staff," says Karen.

How has the redesign enhanced your work environment?

"I would have to say the work health and

Fast Facts

Staff engagement was essential at all stages, including design.

Keeping the decontamination site live was a team effort requiring planning and innovation.

Pass-through washers reduced multi-handling.

Bulk chemistry eliminated OH&S concerns about storage and handling of chemicals.

A contingency plan is vital to manage delays.

Communication with staff throughout the project keeps enthusiasm high.



safety improvements of the redesign have made the biggest difference," she admits. "There is no more loading and unloading and manually moving instruments from a dirty to a clean area".

"And reducing the need for multiple manual handling tasks has improved the flow-through. We now also meet the requirements of AS/NZ4187:2014 by ensuring the flow of instrumentation is always from dirty to clean with no risk of cross-contamination."

"Repositioning our sinks has given us more bench space on either side of the sinks and better lighting has also improved the work area," she says.

Delays occur frequently on projects like this. What are your tips for managing the unexpected?

"This refurbishment went to schedule but what I have learnt from past projects,"

Karen advises, "is that an estimated time for completion is only an estimate."

"There are usually hiccups along the way, especially when you are refurbishing areas and come across unexpected factors that are part of the existing infrastructure as opposed to a new build," she says.

"Contingency plans are vital to ensure that a live work site is safe, Theatres keep running and the hospital can keep functioning. Meeting standards and keeping up staff enthusiasm for the project that may be running over-time also needs to be considered."

"On this project we have kept our staff informed every step of the way so they feel engaged and invested in the changes that will improve their work day, improve patient outcomes and ultimately be worth the short term disruption of a refurbishment," Karen says.



Karen Tricker has been the Nurse manager of the CSSD's at Western health for the past 10 years. With over 30 years nursing experience Karen's main areas of work have been in Operating theatres and teaching. Her focus has always been to deliver her patients the very best of care and Karen achieves this through CSSD by ensuring she has well educated and supported staff who strive to maintain best practice in the decontamination, sterilisation and tracking of medical devices.

What was on Karen's wish-list for this refurbishment?



Pass through washers



Compliance to standards



Reduction in manual handling to improve the flow of the equipment

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Save Lives

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undreds of lives have been saved by Australian hospitals that have managed to slash the number of people catching infectious bugs while in care through the use of hospital grade hard surface sanitisers. However, rates still vary widely between hospitals, leading the National Health Performance Authority to warn hospitals with higher rates that they should learn from those where infection rates are up to three times lower, thanks in part to the use of hard surface sanitisers.

The latest figures from the authority, released in April 2015, show the number of people developing serious blood infections caused by the potentially deadly "golden staph" bug fell by 6 per cent in the last financial year. This includes cases of the "superbug" MRSA, which is resistant to commonly used antibiotics.

Professor of infectious diseases at the Australian National University Peter Collignon said the rates of blood infections had halved over the past decade, saving hundreds of lives thanks in part to the use of hard surface sanitisers

"If you prevent one or two thousand cases per year, which we probably have done over the past 10 years, that literally is between 200 and 400 fewer deaths per year in Australia," he said.

"That is also preventing a lot of suffering, and we are saving health care costs because people aren't in hospital longer than they need to be".

However, Professor Collignon warned that hospitals should not become complacent – many cases were still preventable with proper infection control such as staff making sure they cleaned their hands properly, and the use of hard surface sanitisers.

Australian company Eucalip Bio-Chemical Group Pty Ltd has innovatively manufactured a product, which is conveniently packaged in a sachet and ideal for everyday use as required – simply add water and safely and effectively sanitise your area. There are two hospital grade strengths in the Det-Sol range. Det-Sol 500 is used for sanitising hard surface areas, such as areas of food preparation and areas where general infection control is needed. Det-Sol 5000 is used in "dirty areas" where blood and body fluid spills may occur and a higher concentration of disinfection is required. Det-Sol is currently used by major hospitals, institutions, pathology laboratories and for military use nationally.

References:

1 National Health Performance Authority Performance Report (9th April 2015)



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Wearable Technology

- revolutionising the healthcare industry

As the medical industry transitions into the digital world, advances in healthcare innovation are being readily adopted by health professionals and patients who are seeking new technologies which deliver meaningful benefits.

earable technology is at the forefront of this shift, as new developments now provide accurate and insightful information about human activity across a range of applications.

Aged care

Injury through falling is a significant problem that can cause physical trauma and stress on elderly patients. By using wearable applications on the patient's legs and back, healthcare professionals are able to measure poor balance, uneven gait patterns and identify who may be at a higher risk of falling.

Wearable devices are also able to aide in fall detection, when elderly patients or residents do not have close supervision of nursing or hospital care. For example, sensors are applied to the body to detect if a person has fallen, the position they are in and vitals can trigger an automatic alert to the carer.

Medical Carers and OH&S

Musculoskeletal injuries from overexertion in healthcare occupations are among the highest of any profession in the world, especially relating to lower back and shoulder injuries. Data recorded by wearables is now

FAST FACTS

- Wearable technology allows for measuring poor balance, uneven gait patterns and risk of falling.
- Sleep quality and voiding episodes can be monitored with wearables.
- ➤ Data recorded by wearables can reduce risk to staff by assessing manual handling activities.
- ➤ Metrics empower patients to accept responsibility for their own health.

playing an important role in reducing risk to healthcare professionals by assessing manual handling activities and providing an insight into the strains placed upon their body or the body of employees, with potential to implement 'best practice' measures to reduce the risk of injuries.

Self-rehabilitation

Wearable technology is shifting treatment towards a 'self care monitoring' by encouraging patients to live healthier lifestyles and empowering them to take control of their own health. Beyond just recording data for athletes or fitness fanatics, devices now enable patients to monitor themselves remotely and take control of their own health. This data is able to be relayed to their healthcare professionals to provide an update to progress or keep a check on vital signs.

This in turn works to the advantage of rehabilitation specialists and physiotherapists, who have access to accurate data to provide patients with exercises to perform at home while measuring any advised treatment's effectiveness to the individual.

Other forms of wearable technology are also being used to monitor sleep quality, to assess voiding episodes in hospital and nursing home environments and even to detect stress levels and as a potential diagnostic to depression.

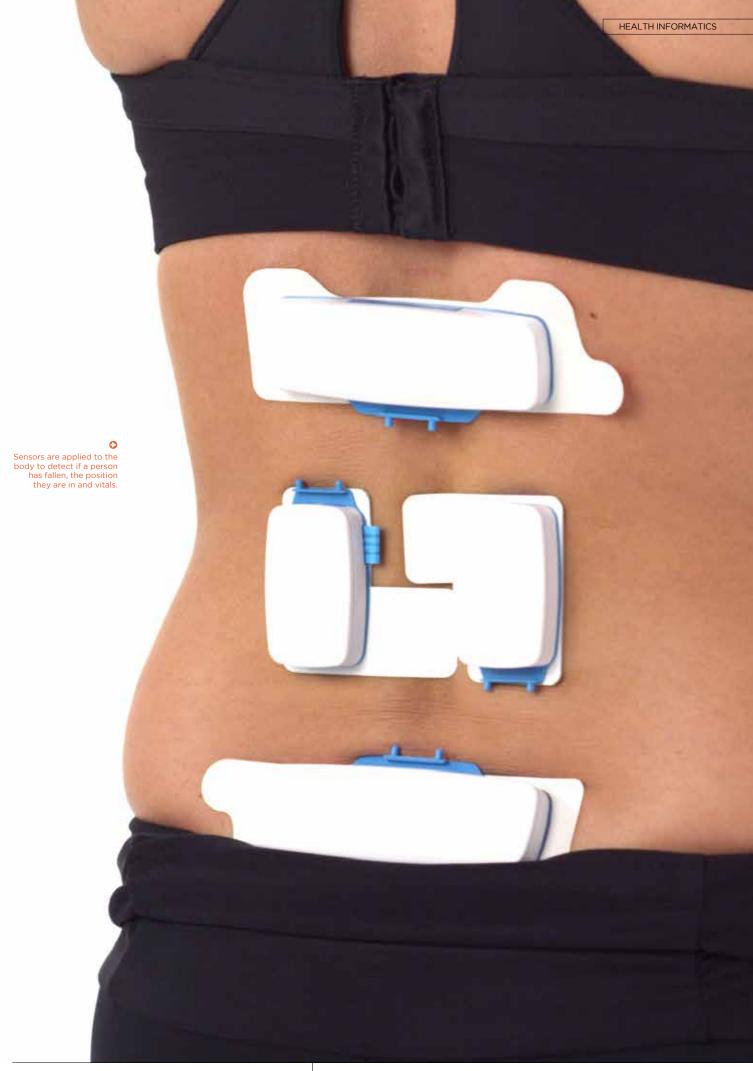
Wearable sensors in healthcare are part of an 'empowered self' movement. Healthcare professionals are putting a greater emphasis on patient education, providing the metrics for patients to understand more about their bodies and manage their own health. This next generation of wearable technology has the power to provide accurate data from the patient's real world environment, drive improvements in patient care and ultimately reduce costs to the healthcare system.

"Data recorded by wearables is now playing an important role in reducing risk to healthcare professionals by assessing manual handling activities."



Dr Andrew Ronchi

Dr Andrew Ronchi B.App.Sci (Physio), PhD (Comm Sys Eng), GAICD Chief Executive Officer, is the brainchild and founder of Melbourne-based technology company dorsaVi. A sports fanatic and former physio for AFL clubs Melbourne and St Kilda, Andrew and his brother Dan developed a suite of wearable sensor technologies that have a unique ability to measure and interpret human movement.



Outpatients' telehealth program is saving time and money

Senior Physiotherapist, *Stephanie Carroll*, walks us through the successful trial of a telehealth program being used in the Post Arthroplasty Review (PAR) clinic at St Vincent's Hospital Melbourne (SVHM).

VHM is responsible for approximately 700 joint replacements a year with each of these patients requiring routine reviews for up to ten years post surgery. SVHM provides an Elective Surgery Access Service (ESAS) which offers surgery to patients that have endured long wait times elsewhere. Often patients are required to travel long distances to attend their review appointments.

In 2008, a physiotherapy review clinic led by Advanced Musculoskeletal Physiotherapists (AMP) was established to assist with the increasing number of reviews traditionally completed by orthopaedic surgeons.

Our clinic is an advanced musculoskeletal physiotherapist review clinic. So our physios have had some extra training in performing reviews post total joint replacement.

Traditionally a patient would see their surgeon for all their post-op reviews starting at 6 weeks after surgery and then at 3, 6 and 12 monthly intervals, following up with reviews at 3, 5 and 10 years.

Physiotherapists have been involved in providing some of these reviews for a number of years now. About 18 months ago,

the telehealth element was introduced and this provides another way to provide these reviews for patients finding it difficult to attend a clinic due to location or in some cases, work commitments.

We trialled a telehealth program (Blue Jeans) that Monash Children's Hospital had used successfully to provide a video link for these appointments as an alternative to a face-to-face appointment. We were very pleased with the results and we are continuing to use it.

Part of the review appointment involves assessing the patient's movement, for example, their walking, how they stand up from a chair and their standing balance. Video conferencing facilitates this by allowing the physiotherapist to get a good visual of the patient.

The screen sharing function is also valuable. We can bring-up the patient X-ray on our screen and share that with the patient while explaining the findings. This helps the patient understand what is happening and allows them to be more engaged in the care process.

A review appointment takes approximately 10 minutes. So for a patient to be able to

have this review done in the comfort of their own home or at work with no travel time or expense is a lot more convenient for them. With eliminating the need for unnecessary travel and time off work for a face to face review, patients reported saving an average of \$77 and 5 hours through a telehealth appointment.

Firewall restrictions have been a challenge which requires us to have dedicated computers for the telehealth program. Internet connectivity and patients having access to the necessary hardware can be a problem that we feel will resolve as computers and tablets become commonplace.

We would like to see this technology used more broadly across the hospital and other clinics. We have found from an organisational perspective, this telehealth initiative has increased productivity and has the potential to improve patient outcomes by making review appointments easier and less costly for our patients. It means that we can provide a patient centred service without compromising quality of care.

FAST FACTS

- SVHM perform approx. 700 joint replacements a year with reviews for up to 10 years post surgery.
- The Post Arthroplasty Review (PAR) clinic conducted a telehealth trial for performing reviews.
- ➤ Telehealth enables patients to access review appointments remotely, eliminating travel time and cost.
- ➤ The trial was a clinical success.
- ➤ Patients reported average savings of \$77 and 5 hours per telehealth appointment.
- ➤ Firewall restrictions and internet connectivity are challenges to overcome.

Steps in a postoperative joint review



Meet the patient.



Subjective questioning.

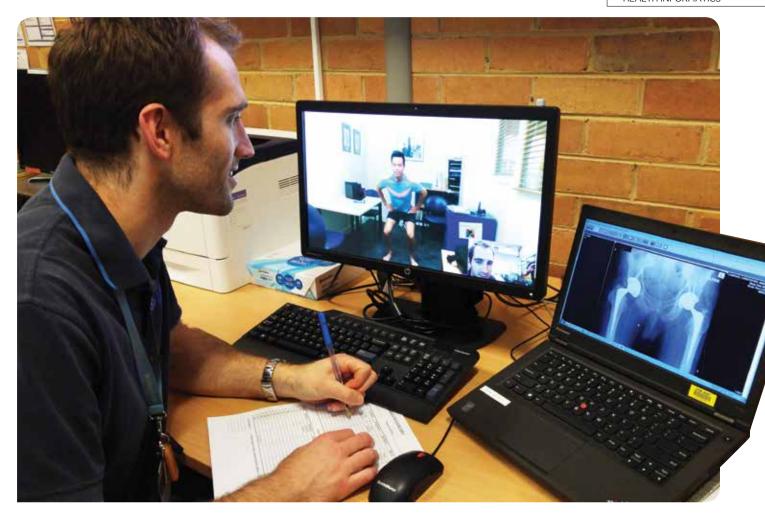
How are you going? Any problems with the new joint such as pain or restricted function?



Conduct an X-ray review with the patient.



Objectively observe the patient's movement.





Case Study

Mrs Z, is a 69 year old female who lives 213 kms from SVHM. She was due to have her five year review post total hip replacement as per the orthopaedic protocol. Mrs Z was identified as appropriate for telehealth. She was contacted and given this option to which she agreed.

Mrs Z was able to have her X-rays taken at a local radiology service. These were accessed by the Advanced Musculoskeletal Physiotherapist at SVHM via an online account prior to her appointment and then reviewed by an orthopaedic surgeon as per routine for traditional face-to-face reviews.

The telehealth appointment was conducted using Blue Jeans which allowed for Mrs Z to be observed mobilising, performing functional tasks (squatting, getting on and off a chair) and view hip range of movement

without any issue. It was possible to easily discuss Mrs Z's progress and with the share screen function, she could be shown her X-ray and have it explained.

Mrs Z was asked to provide feedback on her experience of using telehealth. She reported being extremely happy with the telehealth service and would use it again in the future. Mrs Z found the program easy to setup and use.

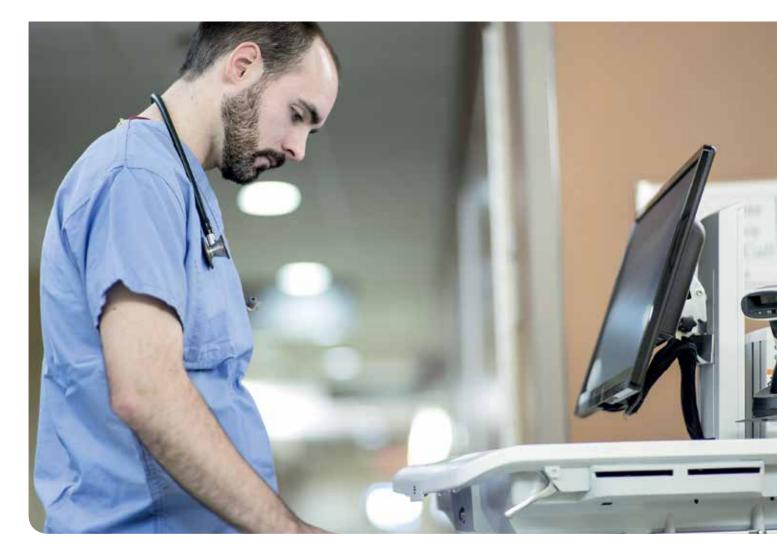
The telehealth appointment took 9 minutes in total, whereas it would have taken her a whole day to come to St Vincent's with 3 hours of travel to and from Melbourne at cost of approximately \$70 in fuel. This was a significantly positive outcome for Mrs Z as she could remain at home and still receive the same standard of care as she would have if attending the appointment in person.



Stephanie Carroll

Stephanie Carroll is a Senior
Physiotherapist (orthopaedic team) and
Credentialed Advanced Musculoskeletal
Physiotherapist (AMP) in the Post
Arthroplasty Review (PAR) clinic, St
Vincent's Hospital. Stephanie is also
the Project Lead of the telehealth AMP
PAR clinic. Stephanie has a particular
interest in health promotion, quality
improvement and innovative care

HEALTH INFORMATICS MARKETPLACE



How CIOs are Turning Data into Information

The responsibility of making data useful falls squarely on the shoulders of healthcare IT. For healthcare CIOs, the responsibility has shifted from being responsible for infrastructure and software upgrades to evaluating technology solutions and choosing the right ones to improve patient care. Then they have to prove to clinicians, nurses and staff that those solutions are a vital tool both in terms of providing the best care possible as well as supporting the best operational decisions.

Find your path

There is more than one path to a digitised medical record and it is important for each organisation to choose a path that addresses both their resources as well as their strategic plan. A simple and practical approach is to start by digitising your medical records by scanning them. This will accomplish the first three steps to an Enterprise Content Management (ECM) solution by providing scan, store and retrieve functionality. It will also protect your records against loss - no small concern for most organisations. When properly executed, a scanned medical record will be easily retrievable so clinicians can access information quickly. This is fundamental to supporting both patient safety as well as productivity.

Find what is missing

Clinicians need all of a patient's information. Unstructured content like paper, faxes, images, photos, and forms need to be stored in one central location to provide ease of access for staff who need it. If clinicians have to go to paper charts or multiple applications to get what they need, clinician adoption and satisfaction rates will suffer. Worse yet, clinicians could make a care decision without all the available information and place patients' safety at risk.

No matter how or where patient information originates, it has to be easy for clinicians and staff to get to it the moment they need it. Just scanning and archiving content isn't enough. Therefore, CIOs have to figure out how to capture all of a patient's information and make it easily retrievable.

Create a complete record

To capture and centrally store the information most health record systems overlook, many hospitals adopt an ECM strategy. At the centre is an ECM solution that digitises traditional hard copy records and integrates that clinical content into their existing systems.

With ECM, health information management departments scan or import clinical information (paper documents, EKGs, medical images (DICOM and non-DICOM content) which may then be accessed directly through the ECM or integrated to the EMR. Users easily pull up what they need, when they need it, in context, all in one screen. Caregivers will spend less time looking for information and more time acting on it, making more informed





decisions for patient care.

Tie documents, data and processes together organisation-wide paper and disconnected systems aren't just a problem for hospitals trying to improve clinical content management. Billing and accounts receivable, payroll and personnel, and accounts payable departments all struggle with paper files and slow manual processes.

Those hospitals who've adopted an enterprise-wide ECM strategy extend their ECM solution across their organisation, tying together documents, data and processes in every department. The same ECM system benefitting clinical areas brings benefit to other departments too. Through its quick deployment, this one system creates exponential value at a fraction of the cost of managing mountains of paper and manual processes. An ECM strategy not only eliminates paper, but also automates processes across the organisation, saving both time and money.

The final analysis

In the end, the most important goals are always patient safety, improving the end user experience, and controlling if not reducing costs.



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About the Author

Susan deCathelineau, MS, RHIA, is vice president Global Healthcare at Hyland Software



Leading Age Services Australia Feature

Overcoming the Great Data Divide

There is little doubt that we have entered the "data revolution". Mass information is at our fingertips; personal information is collected at every opportunity. The volume of data generated each day equates to 2.5 quintillion bytes with 90% of the world's existing data created in the last two years, according to technology news source, VCloudNews.

wo years ago the United Nations identified that data was creating another social divide, with the world's poorest, most marginalised people excluded from the information flood. To address this, a special advisory group was appointed to determine how to involve everyone in the data revolution, to increase the quantity, quality and usability of data with the overall goal of improving people's lives.

The group comprises experts from civil society, private sector, academia, governments and international organisations, the people who manage data for governments and the people who put together the global numbers.

The data social divide is not just occurring at an international level. In Australia, there is a chasm of difference between data collection and its application – particularly in aged care.

At present, obtaining high quality, meaningful data and translating it into practice can prove to be a significant enough hurdle as to halt the data collection process.

Being predominantly Government-funded, age service providers collect large volumes of raw data on behalf of Government but they do not own it, hence they cannot store it. The data collected is not always made available to the industry, nor used in an informative manner.

While the Government must balance its responsibilities regarding privacy and confidentiality, this existing information has the ability to enhance service delivery. It makes little sense that it is not shared with

providers, academics or industry bodies to inform continuous improvement initiatives.

Likewise, if we are to improve the quality of data to gain maximum benefit from its collection, there needs to be an improved interface between Government and providers for determining questions and defining the measurability, appropriateness, scalability and affordability of revised or future data collection strategies.

The lack of integration between My Aged Care and My Health Record is of particular concern for both aged care and health providers. These two systems continue to operate completely separately from one another, creating a concerning yet avoidable information gap for both health providers and aged care providers.

The wealth of 'social care' information about an individual held by residential aged care and community or home care providers is largely missing from most people's health records. Such valuable information would give health professionals a much clearer picture of the person they are treating, likely enabling faster diagnoses and better targeted treatment or support. However, until aged care providers are recognised as part of a person's primary care team and have access to up-todate health records, there will remain a significant gap in information sharing amongst professionals to the detriment of the individual.

As we continue to move to consumerdriven service models, the role of data in informing quality improvement activities is increasingly vital, but meaningful data is



"The data social divide is not just occurring at an international level. In Australia, there is a chasm of difference between data collection and its application - particularly in aged care."



currently limited in scope, collection design and availability. Improvement activities that stand to benefit from improved data application include benchmarking, education and training opportunities, and internal policy and procedure reviews.

To illustrate this point, LASA believes the three quality indicators currently being introduced into residential aged care, which focus on clinical care of pressure injuries, use of physical restraint and unplanned weight loss, may not achieve the desired outcomes of informing consumer decisions and assisting providers in their quality improvement activities.

To address this, LASA has proposed that a comprehensive suite of quality indicators be developed from which providers can select based on their specific application to business and strategic intent. The information collected could then be submitted to the national database to assist in developing national benchmarks and achieve the goal of quality improvement for the provider.

Once such benchmarks are established,

the ongoing data collection would serve to inform continuous improvement for providers and people's own personal development or decline. Such data would also help to inform population health studies connecting aged care with primary care and emergency care – an area currently fragmented in terms of data collection due to different state and local health management policies.

With the changing demographics of age service consumers, it is unsurprising that demand for certain services and products is also changing. However, quality measures in aged care are still defined by Government-led regulation and compliance, not continuous improvement based on industry and consumer feedback. The aged care quality standards focus on regulation and compliance, not innovation or continuous improvement driven by consumers. Not only does this place unnecessary administrative burdens on providers but it fails to address people's wants and needs.

We have seen the impact on other industries moving to share economies

- mostly in response to the arrival of disruptive services such as AirBNB and Uber. Aged care is not immune to this and Government and industry must be prepared for disruptive technology and services that bypass current regulation.

Such age service already exist overseas. In the US a company called "Honor" is already providing 'Uber-style' home care services ranging from medication reminders to transport, housekeeping, personal hygiene, companionship and helping people keep active. It is only a matter of time before we see similar services in Australia.

Alongside this shift in demographics and changing demand for services, the significant reforms that continue to affect our industry present a considerable opportunity for innovation. The absence of meaningful data and the disconnect between what quality means to consumers and existing quality indicators, however, is a hurdle that must be overcome. The benefits to consumers, providers, innovators, health professionals and more broadly, the health system, will be immeasurable.

One machine for all people

From chaotic emergency rooms to quiet waiting rooms, the healthcare industry relies on technology to perform its tasks reliably so carers can focus on the health of patients rather than the health of their IT equipment. The day-to-day operations of most healthcare facilities produces a great number of printed documents so having printers that can be relied on to handle rigorous use is paramount. When your equipment works well, it is almost invisible, faithfully plugging away and producing prints day in, day out with ease. As a result, it is easy to dismiss the impact a quality machine can have in a healthcare environment.

or care professionals, they need tools that help them do their job quickly, efficiently and reliably. Just as you wouldn't consider an MRI or X-Ray machine that didn't perform flawlessly, the same level of quality must also be demanded from your administrative equipment as well. This is the primary design goal of the latest series of scalable, modular monochrome laser printers. The range is built from the ground up with flexibility in mind allowing you to create the type of system you want. In essence, it is one machine to all people.

Flexible to your needs

Whether it is a smaller two tray printer in a GP office or a high volume floor standing-model in a hospital, the latest range can be modularly adapted to fit your workflow. Brother understands that every healthcare professional is different and that the needs of an environment can change over time. There are seven base models in the range starting at the HL-5100DN three tray system running at 40 pages per minute through to the larger Multi-Function MFC-L6900DW which sports five trays, a slew of productivity features and a blistering 50 pages per minute speed. Depending on budget and feature set, a base model can be selected then expanded in the future with extra paper trays and various optional accessories. Even the trays themselves come in multiple sizes so you can choose between 250 page or 520 page capacity.

Adding a new paper try isn't only so you can increase the capacity of paper on the printer but is rather a way to provide extra functionality to the printer as well. By specifying which print jobs use which tray, you can have all your scripts in one tray, pathology slips in another, have one tray for radiology slips and fourth tray for administration/letterheads etc. In a larger environment and combined with networking and workgroup features, a single machine can service an entire ward or medical centre.



Helping you help others

By taking advantage of the modular design and having dedicated trays for different types of jobs, there is never a need to switch paper types, therefore saving administration time. With the latest range of Brother Printers you are also able to share critical patient information while maintaining HIPAA compliance, facilitate electronic health records interoperability, and improve record keeping while enhancing the quality of care and streamlining your workflow.



The great printing solution should work for you to help raise efficiency and free up staff to concentrate on their important work with patients. The healthcare industry is of particular importance to Brother as it is unlike any other business. In a regular office, a half hour saved is only extra minutes for more work but in healthcare that time translates directly to helping people. That is the goal, to help you so you can better help others leaving you to do the important work you are trained for and leaving the worry or frustration of administration to us.

Helping to find the perfect solution

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. The team will endeavour to better understand your print environment and come up with a suite of products to improve your workflow. Our products are compatible/integrated with multiple software packages used in the healthcare industry including Cerner, EPIC and Meditech.

Understanding the Range

The range are monochrome laser printers available at different price points and feature sets. The range is comprised of Multi-Function printers as part of the MFC series and dedicated printers in the HL series. The MFC series has three models namely the MFC-L5755DW, MFC-L6700DW and the MFC-L6900DW in ascending order of price. The Printer series has four models being the HL-L5100DN, HL-L5200DW, HL-L6200DW and the HL-L6400DW, again, in ascending order of price. Starting from a base machine, each new model has additional features, faster speeds and different connectivity options. The top tier machines for the Multi-Function and the Printer Monochrome Laser ranges contain the highest level of innovation on offer with unique technologies perfectly suited to the healthcare industry.

The top of the range Multi-Function printer is the MFC-L6900DW which clocks in at a blistering 50ppm and has an RRP of \$1799. It can be built as a floor standing model with 6 optional trays, a 12.3cm touchscreen and 80 page document feeder. It has 1GB of memory and comes with the added connectivity of Near Field Communication which allows for extra security features and copy tracking. It uses ultra-high yield toner at up to 20,000 pages and has optional extras available like a mailbox stacker/sorter. This unit would be ideal for a workgroup environment or printing room but will also work brilliantly in a smaller practice or nursing home office.

The HL-L6400DW can also be built as a floor standing workhorse which can pump out prints at a rate of 50 pages per minute and has USB host functionality to be used in conjunction with card readers. It has a user-friendly 4.6cm touchscreen and fast processing thanks to its 512MB of memory. When it comes to connectivity, it has both wired and wireless Ethernet and Near Field Communication compatibility. Like its Multi-Function cousin, it takes advantage of an ultra-high yield toner, can use up to five paper trays (520 input/ 250 output) and is compatible with mailbox stacker/sorter attachments.

Finally, all units, across all ranges, have enterprise level security features such as Secure Function Lock (SFL) 3.0, NFC card reader, Internet Protocol Security (IPSec), Print Archive, Secure Reset, Active Directory and Certificate Management.



For more information, visit www.brother.com.au/ProfessionalMonoSeries/ or contact the Brother Commercial Division today on 1300 885 989 or corporatesales@brother.com.au

Digital health innovation and where you need to be

Nurses, registrars, midwives, allied health professionals, surgeons, engineers, IT-geeks and health informaticians... What do all these people have in common? They are driving a wave of change, sweeping Australia's healthcare system.

rom diagnostic mobile devices to inhome avatars to consumer wearables, digital health is becoming mainstream.

But what does it all mean to your workplace? What does the future look like? Where do you go to find out the latest innovations and how your workflow can be improved?

The Health Informatics Society of Australia, more affectionately known as HISA, is Australia's peak body for the digital health community.

With a rich 24 year history, HISA represents clinicians and others in a large and diverse community, who are all interested in building Australia's digital health future.

As one of the fastest growing not-for-profit organisations in Australia, HISA's membership base boasts a broad spectrum of health professionals, ranging from nurses and doctors, to specialists, health IT workers, administrators, academics, policy makers and executives.

All of these people come together once a year at the annual Health Informatics Conference, HIC, which will be held in Melbourne this year, from 25-27 July. For anyone working in health, this event is the one event driving true digital health reform.

HIC brings together health's most forward thinking innovators, for three days of collaboration, networking and learning.

This year's theme centres on "Digital health innovation for consumers, clinicians, connectivity and community," meaning there is truly something for everyone. The conference will highlight innovation and the digital transformation of the healthcare sector and the central role that information and health informatics brings in connecting the system, being smart with data, and enhancing practitioner and consumer experience in healthcare interactions.

HIC Chair and LaunchVic CEO Dr Pradeep Philip said HIC promises to be enlightening, showing how change isn't just coming, it's already happening.

"A big focus of HIC this year is innovation, and what that looks like in real life," Dr Philip said.

"HIC is the real exchange of ideas, thoughts and learnings, which is what's really going to change the face of medicine and healthcare."

Attracting clinical and technological innovators, Hacking Health is again being held at HIC to complement the rest of the very full and diverse program. This mini-event brings together medical professionals, software developers, designers and researchers to collaborate on realistic patient-focussed solutions to everyday health system challenges and problems.

With local and international keynote speakers, across a range of health sectors, HIC leads the way in global trends and innovations.

US based Ron Gutman, CEO at HealthTap, will discuss clinician and consumer engagement, to really cause ripples in the evolving digital world. Dr Sigall Bell, also hailing from the US, will discuss the importance of putting patients and providers on the same page – literally sharing clinical documentation with consumers, with the success of the Open Notes initiative.

Day two of HIC will see a distinct nursing focus with two international keynote speakers Dr Patti Brennan and Brittany Wilson, aka "The Nerdy Nurse" presenting on building and engaging the nursing workforce. This is in addition to the dedicated Nursing Informatics Australia (NIA) event to be held on Sunday 24 July, prior to HIC.

In addition to keynote presentations, delegates will be treated to dozens of the latest clinical, academic and industry research papers, presented by national and international leaders in digital health.

Last year, both the state health minister and the federal health minister, addressed conference delegates. With HIC this year falling mere weeks after the Federal election, the Ministerial Addresses will be a must to attend.

Arguably one of the most common reasons people return year after year to HIC is the opportunity to network with like-minded peers and leading digital health experts.

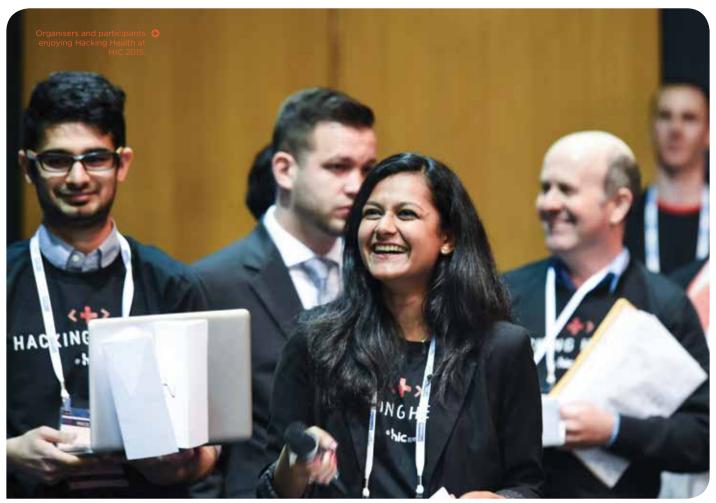


"HIC brings together health's most forward thinking innovators, for three days of collaboration, networking and learning."



For more information and to register for HIC, Hacking Health, NIA and other associated events, visit www.hisa.org.au/hic





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A Day in the Life

Matt Cannon has been a paramedic with the NSW Ambulance Service for six years. Like so many Matt's role can be demanding, rewarding and at times heartbreaking but above all, essential to the wellbeing of our community. Here, Matt gives us a glimpse into what it's really like to work a shift as a Sydney paramedic.

• 06.30: I arrive at the station to commence pre-shift preparation including a full check of the ambulance, medical and medication kits in preparation for a busy day ahead.

• **07.00:** My shift starts and it's time to check emails for important station memos and communiques from senior management.

o **07.02:** We are called to respond to a motor vehicle accident, with two cars reportedly involved in a nose to tail collision. While the collision has only resulted in minor damage, we are informed a 72-year-old female is suffering from shock as a result of the incident.

09.45: On our way back to our base station, we are diverted to a tend to a 35-year-old male patient who is reported to have fallen eight metres from scaffolding, landing on concrete at construction site.

09.30: Following a successful patient transfer to the care of staff at the tertiary hospital, both Christie and I enjoy a well-deserved coffee from the hospital café (a rare opportunity).

00.00

STARTS

o 07.56: We are called to provide non-urgent transport from a District hospital to a Major Tertiary Hospital for a 75-year-old male patient. He is going for an angiogram after he presented to the emergency department earlier the prior evening suffering chest pain.

07.10: My partner, Christie and I arrive at the scene of the collision, survey the scene and provide a report to the control centre. We then proceed to assess two patients.

o **07.35:** Once we have completed a comprehensive assessment of the 72-year old female patient, with no acute health problems identified, we provide her with some general reassurance and arrange for someone to pick her up before departing the scene.

"While police hold the man down to protect him from further harm, we attempt to talk to him and provide strong reassurance. Unfortunately the man is too drug affected and cannot be reasoned with."

• 13.55: Before we arrive back at base, the Control Centre directs us to respond to a patient exhibiting abnormal and violent behaviour at a home unit. The notes sent down to our mobile data terminal indicate that the patient has a history of violence and drug use. We respond with police not far behind. On arrival we wait outside the premises until police arrive.

10.30: The patient is loaded into the ambulance and transported urgently to a Major Trauma Centre in a critical condition. The police provide an escort to hospital to clear traffic, allowing the ambulance to move more freely.

10.55: The patient is offloaded into the resuscitation area at the Trauma Centre.

13.40: After a long morning, the Control Centre then send us back to base station. On the way we pick up lunch from a cafe.

14.30: By this point the sedation has started working and he is now drowsy but rousable. We arrive at hospital where he is admitted to the resuscitation bay.

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13.00

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14.00

09.52: On arrival at the scene, Christie and I don a helmet, safety vest and safety goggles. We are taken 75 metres down a scaffolding stairway to find the male patient lying unconscious, with significant bruising to the chest and abdomen and laboured breathing. We commence immediate assessment, identifying the likely problems affecting the patient, including;

- 1. An 'at risk' airway,
- Likely bilateral pneumothoraces (abnormal collection of air or gas in the pleural space that causes the lung to 'collapse'),
- 3. Possible abdominal bleeding as evidence by abdominal rigidity and bruising,
- 4. Possible fractured pelvis

We commence our treatment by inserting a laryngeal mask airway into his airway. Urgent ambulance backup arrives to offer further assistance. The patient's chest is decompressed by inserting a large bore needle into both sides of his chest. This has an instant effect, resulting in obviously improved breathing. A splint is then applied to his pelvis along with manual immobilisation of his neck.

11.38: Control Centre direct us to respond to a 78-year-old lady in a nursing home, who is reported as having a two day history of fever. She is assessed and taken to hospital.

 11.30: After restocking vital equipment, we are ready to depart. **14.05:** We are joined by a number of police officers before proceeding to the unit. The patient refuses to open the door and can be heard screaming inside the premises. An object is hurled through the front window, sending glass flying. Police decide that it is necessary to force entry into the premises.

Several police officers race into the room to find a male patient bleeding from both arms. He is alone in the apartment and has been cutting himself with a knife. The pungent smell of years of alcohol and tobacco in the room is intoxicating.

While police hold the man down to protect him from further harm, we attempt to talk to him and provide strong reassurance. Unfortunately the man is too drug affected and cannot be reasoned with. Our last resort is to administer sedation to protect him and others from further harm.

The patient is placed under Section 20 of the Mental Health Act, allowing paramedics to use restraints to facilitate him receiving mental health care at hospital. He is placed in restraints and loaded into the ambulance.

18.05: It's near end of shift - we finally get back to base station, but as we open the station door the emergency phone rings. We are called to treat a 58-year-old reported as suffering chest pain, with a history of cardiac health conditions.

After battling through peak hour traffic, we arrive at the location to find the patient with his wife and children. He is clutching at his chest. His wife indicates he didn't look well when he got home from work at 17.45. She tells us about his heart attack two years ago. She says his blood pressure is still high and he indulges in "a few too many ice creams at night."

We commence assessment; including measuring his vital signs and conducting a 12 lead echocardiogram (ECG). Assessment of the ECG immediately indicates he is having another heart attack. We commence immediate treatment, including administering aspirin, glyceryl trinitrate, inserting an intravenous cannula and providing morphine for pain relief.

From the patient's bedroom, his ECG is transmitted to an interventional cardiologist at the designated PCI (catheter laboratory) unit. Within minutes, I receive a return phone call from the doctor. We have a lengthy conversation and decide the patient needs to be brought into the catheter laboratory urgently.

It's now 40 minutes since his onset of symptoms and we only have a small window of opportunity to prevent permanent damage to his heart - he needs the cardiologist to insert a stent urgently. We really need a clear run to the hospital.



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19.00

20.00: We arrive at base station. Our shift was meant to finish at 19.00, but emergencies don't happen on your time!







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16.00 **८**

17.00

15.30: Once again we are returning to base station only to be re-directed to treat a 12-month-old child who is described as having a fitting episode. The notes indicate she has had a high fever for two days. On arrival we are greeted at the door by the mother holding her baby. While she appears outwardly calm, it is clear she is understandably panicked.

We immediately load the patient into the ambulance, who by this point has stopped fitting. We measure her temperature at 40C. We reassure the mother that febrile convulsions can sometimes occur in young kids with fever and this this is usually isolated event and seldom an ongoing problem. She appears greatly reassured with this advice. We take this patient to the district hospital where she is assessed in the children's section and returns home several hours later.

19:05: after pushing through traffic we arrive at the hospital where the cardiology team meets us in the emergency department and we progress up to the catheter lab. An angiogram shows the patient had massive occlusion of his left anterior descending coronary artery. In the old days, this patient probably wouldn't have survived. Because paramedics are able to identify these conditions very early on, we can divert the emergency department, taking the patient right to the theatre, thus minimising delays. Truly lifesaving stuff.

20.30: After cleaning our equipment and restocking medical and medication kits, we sign off duty. That's our day done, with an hour and half overtime.

"We arrive at base station. Our shift was meant to finish at 19.00, but emergencies don't happen on your time!"

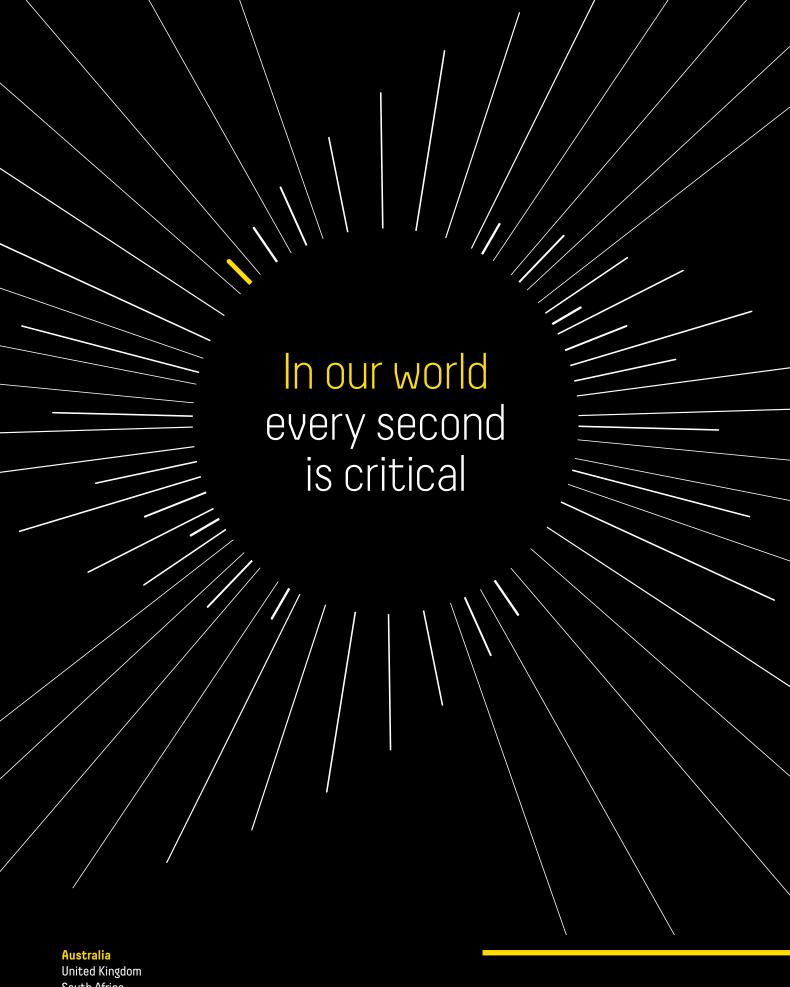


A Day in the Life is a regular column opening the door into the life of a person working in their field of healthcare. If you would like to share a day in your working life, please drop me an email: ckelly@aprs.com.au.





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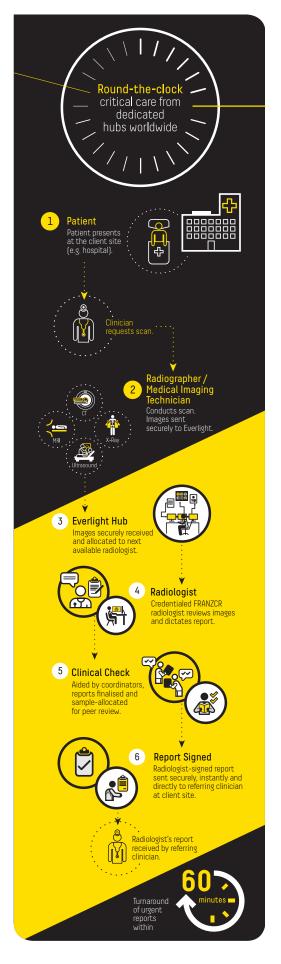
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Whole-of hospital occupancy management through the ED

With millions of patient records now sitting in the healthcare system, health informatics researchers have been able to transform this data into an effective patient management system, incorporating emergency department admission predictions, patient flow throughout the hospital and even predicting readmission rates for regular patients known as 'frequent flyers'.

Starting at the door

Approximately 20-25% of patients start their journey through the health system by arriving at an Emergency Department in an ambulance. Ambulance services often maintain separate databases from hospital admissions services, and identify patients in different ways⁵, which is where the research first began.

The Patient Admission and Prediction Tool (PAPT) was developed at the Australian e-Health Research Centre by CSIRO in partnership with Queensland Health, Griffith University and Queensland University of Technology.

The web-based PAPT delivers real-time forecasting based on admissions data from previous years in similar circumstances - for example, prediction of admissions for the Easter long weekend would be based on what admissions had been received at the target's own site and surrounding medical facilities for up to 10 years. Allowances are made for other factors such as specific events (large public events), current or additionally forecasted outbreaks of communicable illnesses and commonly repeating patterns (day of week, other identifiers that hospital bed managers can easily pinpoint for their facilities). The Gold Coast University Hospital tested the system at Schoolies Week to great success.

After developing the model at two Queensland public hospitals over 2002-2007, the research team ran a further five-year study across 27 additional Queensland facilities representing approximately 95% of the ED presentations across the state.² Mean daily presentation rates ranged from 60 to 190 patients/day and it was in the regional facilities with lower ED presentations that something important was discovered: to forecast a particular category of interest, there needed to be roughly more than 10 admissions or presentations per day.²

It was also found that poorer forecast performance was experienced over winter months, particularly the winter of 2009 (and to a lesser extent 2007), which correlates with significantly increased influenza-like ED presentations experienced across this season.²

Those in the test study were presented with forecasts for daily admissions and presentations, patient-flow in 4-hourly blocks, hourly admissions, gender, medical specialty and criticality (Australasian Triage Scale), as it was expected that this would be the most useful format for users. A bed manager commented however, through a follow-up interview, I use it usually on a weekly basis. Print off usually at the start of the week, and have a look at what's predicted for that week.

This was the executive management response during the study, particularly with regard to their own experiences during the regular walk-arounds.

"[it was] implemented in response to a crisis point, but there started to be some backlash. I was hearing from team members that every time they would see executive would be in this negative, punitive ... 'You're hiding beds'. We'd never say that, but that's why I moved toward a weekly meeting with the executive and the nursing directors where we'd use the PAPT information with the DADs [daily admissions and discharges report] to say, well actually, let's not wait until Friday. Let's have a look at what we're likely to be experiencing over the next seven days and put in place some proactive strategies to deal with it."

Lead researcher Dr Justin Boyle said the team added a few components to the software following user feedback. "The inclusion of detailed breakdowns shown on the dashboards has been at the request of patient flow units at hospitals, who not just wanted to know what's coming in and out (admissions and discharges) but specifically wanted a better understanding of admitted patients in hospital at midnight for any particular day.

"Illustrating net patient flow is considered useful for communicating the required decision making around opening or closing hospital beds. It shows the onset and duration of the annual winter bed crisis and periods where it is quieter and where a hospital could close a ward representing significant cost savings," he said.

Beyond the ED

Using the model developed for the prediction of emergency admissions, CSIRO was able to extrapolate the information and apply it to other problem areas within the residency management issues that the Labor government had targeted as part of its National Health Reform Act, promising to reduce access block and overcrowding.

Modern hospital systems have the ability to operate efficiently above an often-prescribed 85% occupancy level, with optimal levels varying across hospitals of different size. Operating over these optimal levels leads to performance deterioration defined around occupancy choke points. Understanding these choke points and designing strategies around alleviating these flow bottlenecks would improve capacity management, reduce access block and improve patient outcomes. Effecting early discharge also helps alleviate overcrowding and related stress on the system.⁵

References

- Jessup M, Crilly J, Boyle J, Wallis M, Lind J, Green D, Fitzgerald G. Users' experiences of an emergency department patient admission predictive tool: A qualitative evaluation. Health Informatics Journal 2015; 27 April 2015; doi: 10.1177/1460458215577993 [epub ahead of print].
- Boyle J, Jessup M, Crilly J, Green D, Lind J, Wallis M, Miller P, Fitzgerald P. Predicting emergency department admissions. Emergency Medicine Journal 2012; 29:358-365.
- Khanna S, Boyle J, Good N, Lind J. Unravelling relationships: Hospital occupancy levels, discharge timing and emergency department access block. Emergency Medicine Australasia 2012; 24: 510–517.
- Commonwealth of Australia. Expert Panel Review of Elective Surgery and Emergency Access Targets under the National Partnership Agreement on Improving Public Hospital Services. National Health Reform 2010. Accessed 28 January 2016 (page last updated 27 June. 2010).
- Dods S, Boyle J, Khanna S, O'Dwyer J, Sier D, Sparks R, Good N, Ireland D, O'Keefe C, Hansen D. Evidence driven strategies for meeting hospital performance targets: The value of patient flow modeling. CSIRO Health Services 2013; February 2013: 1-16.



Hospital departments and areas are interconnected, and so a 'holistic' approach has been taken while focusing on:

- Linking ambulances, ED and admissions data to manage ED admissions and the throughput to inpatient admissions.
- Disease surveillance such as outbreaks of influenza, the tracking for which is now used Queensland-wide.
- **3.** ED length of stay performance for measuring NEAT performance targets of 90% of ED patients being discharged within 4 hours of admission.
- Bed demand prediction using the PAPT to plan for numbers and types of beds needed for ED admissions.
- 5. Patient flow visualisation user friendly statistical information for bed managers to monitor all aspects of their patient management requirements.
- 6. Patient flow and hospital occupancy managing the hospital occupancy rate to be more flexible than the often-stated 85% which does not work for every facility.
- 7. Bed configuration using predictive and real time statistics to optimise bed use through specialty clustering and pre-emptive prioritisation.
- 8. Adverse event analysis using current data to improve future adverse event mitigation.
- Early discharge strategies managing reasonable occupancy levels through flexible discharge times.
- 10. Readmission prediction identification of potential 'frequent flyers' who are likely to need readmission in the near future while they are still being treated.

In developing the PAPT and the 10-point blueprint for patient flow modelling the CSIRO is aiming to change the culture of retrospective planning and last minute cancellation of elective surgery patients, to proactive planning, enabling hospitals to better manage their resources and hence reduce overcrowding and its associated consequences.

An interview with Dave Piggott, Executive Director of Health IQ, and Fiona Webster from Austin Health, was published in our Summer 2016 issue discussing their PAPT trial.

"Understanding these choke points and designing strategies around alleviating these flow bottlenecks would improve capacity management, reduce access block and improve patient outcomes."



Sharon Smith

Sharon Smith is the past Editor of Australian Hospital and Healthcare Bulletin. She works as a freelance journalist covering healthcare and the STEM sector. Her website is smsmith.com.au and she is on Twitter @smsmithwriter

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The 2016 Healthcare Leaders Forum:

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In a time of complex economic, demographic and technological change, the healthcare industry is facing unprecedented structural transformation. Healthcare is becoming fast-paced, customer-centric and transparent – impacting traditional delivery models and creating new challenges for healthcare professionals.

ow are healthcare stakeholders communicating their priorities and concerns to senior decision makers? What are the latest strategies revolutionising patient care? How can healthcare leaders act now to make the future of Australian healthcare more sustainable, efficient and innovative?

These issues and many others will be addressed at the Healthcare Leaders Forum on 23rd and 24th August 2016. Senior healthcare leaders from across the nation and around the globe will gather in Sydney to share their perspectives on crucial directions in healthcare reform, best practice, partnerships, infrastructure, technology and much more.

The event will feature inspiring keynotes, focused panel discussion sessions, and plentiful networking opportunities at The Menzies Hotel, a high-quality CBD venue. The comprehensive programme and impressive speaker line-up will have something to offer healthcare executives from all areas of expertise.

Delegates at the forum will:

- Hear from Sir Andrew Dillon, Chief Executive of the National Institute for Health and Care Excellence (UK), who will discuss the role of evidence-based paradigms in shaping successful healthcare systems
- Learn how to develop solid implementation strategies for digital healthcare from Alexandra Pelletier, a Presidential Innovation Fellow at The White House (USA)
- Unlock the world-changing potential of healthcare when Sir Ray Avery, CEO of Medicine Mondiale (NZ), takes to the stage



- Explore what it takes to create enduring and powerful healthcare partnerships when Professor Ivy Ng shares her leadership experience as Group Chief Executive Officer of Singapore Health Services (SG)
- Gain practical insights from Australian executives representing organisations including: the Department of Health, The George Institute for Global Health, Cochlear, Ramsay Health Care, VicHealth, Sydney Local Health District, Medibank, the Aged Care Financing Authority, Indigenous Allied Health Australia, the National Health and Medical Research Council, the Australian Digital Health Agency, and many more.

The Healthcare Leaders Forum is the ideal opportunity for Australia's healthcare executives to exchange ideas, knowledge and experience, to make new contacts and strengthen networks.

Steer the debate at the Healthcare Leaders Forum and help secure a viable and successful future for healthcare in Australia.



To find out more, or to register, visit healthcareleaders.com.au. Registrations are also available by calling **(02) 8004 8590**. For a group discount, register 3 healthcare executives and a 4th executive is welcome to attend for free. Those who register by 15 July will be entitled to early bird rates.

For sponsorship enquiries, contact Angel Gomez on (02) 8090 4363

EMERGENCY MEDICINE MARKETPLACE

Emergency Department Management Conference

The Emergency Department Management Conference showcases innovation and improvement strategies, for hospital management staff and allied health professionals.

he 8th Annual Emergency Department Management Conference is a practical 2 day event that offers an opportunity to network with senior medical and emergency practitioners, identifying common issues and solutions to enhance the performance of your ED and hospital.

Case Study Driven Program

Key case studies and strategies will be shared between public and private hospitals, state health departments, local health districts and allied health professionals across the country.

New ED models of care and the latest improvement strategies implemented by innovative ED leaders across the country will be discussed in areas including, patient safety and patient flow, ensuring timely quality care, aged care, solutions to the challenges of opening a new ED, staff education and support.

This year's highlights include:

- Developing the New Australian Emergency Care Classification
- INTERNATIONAL ADDRESS A Comprehensive Approach to Improving Patient Flow in Hospitals
- · Clinical Governance & The Art of Clinical Decision-Making
- Who Do We Need in ED? Who Can Tell Us?
- Developing a Supportive New Graduate Program for Newly Registered Nurses in the ED
- Opening a New ED, Managing Change, Investigating innovations A Review of Hospital Avoidance Programs for Older People
- National Standards & Patient Safety Are We on the Right Track?
- Risk Insights & Patient Safety Issues in Emergency Medicine Towards Zero Harm in the Emergency Environment
- Initiatives for Managing Aggression
- A New Integrated Model of Care for ED Mental Health Patients
- Improving Mental Health ED Flow A Partnership Approach
- Police Acute Response & Triage Service "Leading Mental Health Services in a New Direction"

2016 Speaker Faculty includes:

- James Downie, Acting CEO, Independent Hospital Pricing Authority (IHPA)
- Professor Michael Ardagh, Professor of Emergency Medicine, University of Otago; Specialist in Emergency Medicine, Christchurch Hospital
- A/Professor Ian Scott, Director, Internal Medicine and Clinical Epidemiology, Princess Alexandra Hospital, Brisbane; Associate Professor of Medicine, University of Queensland
- Dr Dewald Behrens, Emergency Physician, Modbury Emergency Department, Modbury Hospital
- Dr Neil Grant, Clinical Director, The Prince Charles Hospital Adult Emergency

- Penny Kooyman, Clinical Nurse Educator, Emergency Department, St Vincent's Hospital
- Dr Matt Summerscales, Head of Department, Emergency Department, St John of God Midland Public & Private Hospitals
- Dr Michele Genevieve MBBS FACEM, Head of Department, Emergency Department, St John of God Midland Public & Private Hospitals
- Dr James Hardy, Staff Specialist Geriatrician, Aged Care Department, Royal North Shore Hospital
- Robynne Rush, Clinical Nurse Consultant, Aged Care Department, Royal North Shore Hospital
- Dr Elizabeth Marsden, Emergency Staff Specialist, Consultant lead Geriatric ED Intervention (GEDI), Nambour General Hospital, Sunshine Coast Hospital & Health Service Queensland
- Andrea Taylor, Clinical Nurse GEDI, Nambour General Hospital, Sunshine Coast Hospital & Health Service Queensland
- Dr Stephen Gourley, Director Emergency Medicine, Alice Springs Hospital ED, Central Australia Health Service, Northern Territory Government
- Ursula Harrisson, Risk Advisor Medical Indemnity, Victorian Management & Insurance Authority
- Professor Drew Richardson, Staff Specialist in Emergency Medicine, Canberra Hospital & Health Services; Chair of Road Trauma and Emergency Medicine, Australian National University Medical School
- Kylie Stark, Nurse Manager Emergency, Sydney Children's Hospital Randwick
- Lita Olsson, Clinical Nurse Consultant, Department of Emergency, Metro North Hospital & Health Service
- Craig Roudenko, OVP Officer, Occupational Violence Prevention Services, Metro North Hospital & Health Service
- Dr Chris May, Director Emergency Medicine, Redland Hospital
- Dr Kathryn Zeitz, Director Strategic Operations, Mental Health Directorate, Central Adelaide Local Health Network - SA Health
- Dr Kristin-Anne Rutter, Senior Engagement Manager, McKinsey & Company
- Cathy Cooper, Senior Mental Health Clinician, Eastern Health

Accreditation

The 8th Annual Emergency Department Management Conference is supported by the Emergency Care Institute (ECI), the Discharge Planning Association (DPA), and is accredited for 11.75 ACEM CPD hours.

Who will be there

The event attracts senior attendees, made up of around 55% hospitals, 20% Federal & State health departments, 15% LHD'S & allied health professionals, with the remaining percentage consisting of consultants, health technology vendors and legal representatives.



Register now at www.informa.com.au/edm16

Emergency Department Management Showcasing innovation and exploring improvement strategies

20 – 21 July 2016 | Swissotel, Sydney



KEY TOPICS INCLUDE:

- Developing the New Australian Emergency Care Classification
- Improving Patient Flow in Hospitals
- Clinical Governance & The Art of Clinical Decision-Making
- A Review of Hospital Avoidance Programs for Older People
- Opening a New ED, Managing Change, Investigating innovations
- National Standards & Patient Safety Are We on the Right Track?
- Risk Insights & Patient Safety Issues
- Initiatives for Managing Aggression
- Models of Care for Mental Health Patients
- Police Acute Response & Triage Service
- Who Do We Need In ED? Who Can Tell Us?
- Training for Newly Registered Nurses in ED

PRESENTATIONS FROM:

- Independent Hospital Pricing Authority
- University of Otago; Christchurch Hospital
- Alice Springs Hospital
- Princess Alexandra Hospital
- Sydney Children's Hospital Randwick
- Royal North Shore Hospital
- Central Adelaide Local Health Network -SA Health
- St John of God Midland Public & Private Hospitals
- Eastern Health
- Canberra Hospital & Health Services



SUPPORTED BY:

8th Annual ED Management Conference is accredited for 11.75 ACEM CPD hours









Feeding Vs. Eating

How the 'Room Service' model delivers on sustainability and the balanced scorecard for nutrition and foodservices.

n June 2013, Mater Health Services in Brisbane implemented an innovative 5-star hotel inspired food service model, allowing patients to choose their meals when they feel like it.

It is the first and only hospital in Australia offering a hotel-style room service meal service to patients and in 2014 the service won The Private Hospital Association of Queensland's Non Clinical Award for Innovation and the Overall Award for Queensland and the response from patients has been overwhelmingly positive. It is not only changing the way patients feel about hospital food but is also decreasing waste, improving patients' nutritional intake whilst adding to the organisation's bottom line.

Hospitals in Australia typically provide food to patients in a traditional set meal time model, taking meal orders well in advance of the mealtime, often with little interaction with patients, using pre prepared or frozen meals. Hospital food is often the butt of jokes and in the past has been criticised for being of very poor standard and quality.

Driven by a desire to create a better service for patients, Room Service, which enables patients to order from a personalised menu, clinically appropriate to individual dietary requirements, was implemented through a collaboration between Nutrition and Dietetics and Foodservices.

Prior to implementing Room Service, a fully manual, paper based, model was in place. Like many hospitals, patients completed their menu choice up to a day prior to meals via a paper menu which was collected at a designated time. Traditional hospital meal times were scheduled with dinner being served as early as 5.30pm. Many late meal deliveries were required as a result of patients not completing a menu, late admissions and significant changes to patients' clinical status or dietary requirements between the time of menu ordering and their meal delivery.

Under this system, patient satisfaction with the quality and flavour of the food was rated poorly during feedback surveys and high levels of plate waste and general kitchen waste were also being recorded. 'Room Service' is a system most commonly seen in the USA and is more like a hotel style room service than a hospital foodservice system. One a-la-carte style menu integrates 97 per cent of therapeutic diets and specific educational symbols are used to assist patients understand appropriate choices. Patients are able to order their meals anytime between 6.30 am and 7.00 pm via trained staff in a designated call centre and their meal is prepared fresh and delivered within 45 minutes.

The model is underpinned by a specifically designed electronic menu management system that monitors meal choices for every patient, ensuring that patients not only receive options that are compatible with their current medical condition, but also alerts staff if patients miss meals, as well as allowing their nutritional intake to be consistently monitored. This is becoming increasingly important with prevalence of malnutrition in hospitals commonly at 25-30%.

"...in 2014 the service won The Private Hospital Association of Queensland's Non Clinical Award for Innovation and the Overall Award for Queensland and the response from patients has been overwhelmingly positive."

There were four key measures of success developed and measured as part of a broad room service research project:

- Plate waste and reasons for waste through observation and patient semi structured interviews
- 2 Patient satisfaction measured through an external benchmarking organisation
- 3 Kitchen savings and food costs
- 4 Nutritional intake measured via the electronic menu management system calorie counts and patient consumption data

Whilst both protein and energy intake were clinically significantly increased in the room service model, there was also a 20% reduction in total food costs and an average 17% reduction in plate waste as compared with the traditional foodservice model. Some of the greatest plate waste reductions have been seen in patient groups who are traditionally the most difficult to feed – the oncology population recorded an average plate waste as low as 9%.

Reduced overall waste and cost savings are partly due to reduced stock holding but also due to significant reduction in kitchen waste in the move to cooking on demand, rather than forecasting and predicting patient choices in advance, saving the hospital a significant amount of money which has been reinvested into patient care.

Use of the electronic menu management system also allows relatively quick and easy menu changes to be made using patient preference data and popular or unpopular items can be added and deleted. Seasonal produce can also be utilised leading to decreased waste and

reduced costs on food purchased.

There has been a clear meal order pattern when patients are left to order their meals and snacks themselves which has also assisted to reduce unnecessary food waste, particularly in relation to traditional midmeal and supplement items. Almost all patients order food at traditional breakfast and dinner times but a reduction in ordering at morning tea, afternoon tea and supper times has been noticed. Despite this reduction in ordering, total daily nutritional intake has increased as patients consume almost all of the food that they order.

Patient surveys have seen satisfaction with the quality and flavour of the food increased to be within the top 5-10% of peer hospitals.

The number one lesson learned is that if patients are left to decide for themselves what and when they will eat (within medically determined diet restrictions), their satisfaction increases, their nutritional intake increases and waste and costs decrease.

Looking to the future, meals for relatives and guests can also be purchased via the electronic menu management system, allowing an even more patient centred mealtime environment.

The implementation of an electronic menu management system and agile cook on demand model allows a focus and commitment to use of local and seasonal produce further enhancing the sustainability of the hospital's menu.

'Room Service' is a food service model, allowing patients to choose their meals when they feel like it.

Patients order meals between 6.30 am and 7.00pm and their meal is prepared fresh and delivered within 45 minutes. Improved patient satisfaction; decreased waste and costs; improved patient nutritional intake reported.

Electronic menu management system monitors patients food choices and intake. Integrates seasonal produce and 97 per cent of therapeutic diets.



Sally McCray

Sally McCray is an Accredited Practising Dietitian and the Director of Nutrition and Dietetics at Mater Health Services

Sally has worked within clinical dietetics for the past 20 years in a number of hospitals throughout Queensland as well as in Canada. She has had experience working within different healthcare foodservice production and delivery models as well as in restaurant and hotel foodservice environments.

Sally was instrumental in the planning and implementation of the Room Service model and led the Room Service research project. One of Sally's particular areas of interest is the manipulation and development of innovative foodservice models to achieve optimal patient clinical outcomes, healthcare cost management and customer satisfaction.

The Dietitians Association of Australia recommends seeing an Accredited Practising Dietitian (APD) who can tailor an eating plan to benefit individual needs and assist community and corporate organisations develop healthier workplaces. To find an APD in your area, visit the DAA website www.daa.asn.au and look under 'Find an Accredited Practising Dietitian'.

FOOD SERVICES MARKETPLACE



Innovative Meal Delivery Systems that meet the challenge

- every day

Moffat's reputation for delivering healthcare food service safety, reliability and efficiency has been well-earned over the years. The company's success comes down to the individualised services they offer – and the unique, innovative technology they provide.

he Aladdin Temp-Rite range has been carefully researched and developed to ensure superior meal distribution solutions. Maintaining food temperature from the kitchen to the patient is paramount. Products include patented insulated trays, inductive heating systems and rethermalization carts. There's also an integrated range of ancillary equipment for cook-chill systems.

Burlodge distribution systems also provide an innovative approach for the healthcare and hospital markets, with hot-line, cook-chill and cook-freeze applications. Burlodge offers clients a varied product line that caters to the entire spectrum of requirements for multiple portion meal tray distribution. The well-constructed, stylish range is suitable for both traditional cook-serve systems and cook-chill, with additional flexibility through the personalisation of individual patient trays.

The B-Pod is a state-of-the-art system, designed to provide the very best solutions to workflow, safety, space requirements and food quality. The one-of-a-kind nesting system uses a base station to provide consistent convection heating and cooling, as the Pod carries individual trays through production, regeneration and on to delivery. The Pod rolls and nests into the base station which exchanges its heating and cooling to the food on the trays inside the Pod. Importantly, it's all handling free - simply roll in to nest, roll out to serve.

SDX Thermobox gives a simple to use affordable



solution to the challenges associated with meal transport in bulk or portions. The carts are designed to be easily moved by staff and simple plug and play operation reduces the headaches that can often be associated with adjustable control, the range is extremely flexible and offers cooling and heating for safe food transport

The advantages of combi-steamer cooking continues to attract new devotees. Evolving with their customer's demands, **Convotherm** have recently developed a robust new touch display. easyToUCH alleviates the operation and adjustment time commitments required of the traditional combi-steamer. With the Press & Go mode a consistently high quality can be guaranteed – successful recipes can be easily pre-set and put on the speed dial. And, with large, self-explanatory symbols, even unskilled users can learn the operating system quickly.

It's also possible to network the combi-steamers, with key applications centrally controlled via the internet. With the large workload and rigorous demands faced by healthcare providers this ease of use and multi-functionality is incredibly valuable.

The new **Turbofan** design also heeds the changing demands of the healthcare provider. Traditionally popular features, such as easy-clean vitreous enamel interiors, remain. Digital controls and bi-directional fan systems have been improved. And a range of new features have been added, including knob-driven settings with large displays. When standards need to be consistently maintained these innovations deliver peace of mind and ongoing efficiency.

Another example of efficiency is the **Metos** Combi kettle. This device integrates a basic cooking kettle with a powerful mixing device, ensuring many dishes can be cooked from start to finish in one unit, with speed and consistency. With labour-intensive manual mixing a thing of the past, staff can focus on more important tasks.

With this technology our healthcare specialists can recommend meal delivery solutions that are functional and valuable. And they're all backed with the renowned after-sale service typical of the full-integration **Moffat** approach.



For more information please contact our Healthcare Specialists **1800 023 953**

Innovative meal delivery solutions designed for your healthcare needs





Call 1800 023 953







FOOD SERVICES MARKETPLACE



Simply better solutions:

reliable, consistent and versatile.

Nestlé Professional is the perfect partner to provide your healthcare food and beverage solutions. With brands you can trust, our unrivalled equipment and product expertise is perfectly aligned to the varying needs of healthcare sites.

ESTLÉ Docello® Protein Enriched Dessert Mixes have been specifically developed to meet menu standards for hospitals and aged care¹, offering a versatile and easy to prepare, great-tasting addition to your menu range. But more importantly, they are packed with benefits to provide a vital source of protein and calcium in every serve when prepared as directed.

The importance of protein

Protein is a nutrient essential for building and repair of body tissues and the preservation of muscle mass. The ability to use protein from the food we eat is an important part of health at every age and becomes even more so in times of illness.

Hospital studies show that inadequate protein (and energy) intake can be found in as many as 50% of patients in Australian hospitals². Inadequate protein intake can lead to reduced immune function, poorer healing and longer recuperation from illness.

Whilst all age groups need protein in varying amounts, metabolic changes with age mean the elderly need to eat more protein for the same benefit. Australian recommendations for protein intake in the over 70's³ are around 25% more than those for younger adults, so a convenient, cost-effective protein enriched menu option can assist in contributing to additional patient and resident nutrition needs.

"Recommendations for protein intake in the over 70's are around 25% more."

Texture modified diets and thickened fluids are a dietary requirement for those diagnosed with dysphagia and has been found in as many as 68% of residents in aged care facilities⁴. The new range of NESTLÉ Docello® Protein Enriched Dessert Mixes meets Texture C

requirements in being smooth and lump free, moist and cohesive enough to hold shape on a spoon and have the ability to be easily moulded, layered or piped when prepared as directed.

Great tasting range

NESTLÉ Docello® Protein Enriched Desserts deliver on taste as well as nutrition. Your patients and residents will love the variety, the flavour and texture of these desserts.

With menu variety and increased appetite appeal in mind, the tasty range of dessert flavours includes Protein Enriched Butterscotch, Protein Enriched Lemon and Protein Enriched Strawberry.

To achieve a winning flavour and nutrition combination, the product was developed in consultation with dietitians and leading speech pathologists. This also ensured texture and nutrition profiles suitable for hospitals and aged care.

Easy preparation

For consistency across multiple sites and to overcome changing labour challenges, the NESTLÉ Docello® Protein Enriched Dessert range was specifically designed to be quick and easy to make and is conveniently gluten free for effortless menu integration.

All our dessert mixes also have the nutrition calculated per serve for measurable dietary planning and provide detail around portion size, to give you the confidence of knowing their nutritional content when developing nourishing recipes or including the desserts as part of a complete menu.

Perfect Partner

Nestlé Professional is passionate about simply better beverage solutions. With reliable, technologically advanced systems to suit any location, you can offer a variety of quality hot beverages, consistently, cup after cup.

Intuitive design

With stylish systems to suit all areas of your healthcare site, a variety of simple preparation menu choices and continuous support and service, NESCAFÉ ALEGRIA is the perfect choice for serving up quality beverages on demand - offering a choice of reliable systems that will deliver across multiple consumption points and perfectly suit the taste needs of your staff, patients and visitors alike.

Unbeatable simplicity

Backed by our industry leading technical expertise, we have a range of hard-working systems to suit any location. All our machines are simple to use, for you, your staff and your visitors – meaning less skill and maintenance is required.

Ideal where space is a premium, the robust yet compact design of the NESCAFÉ ALEGRIA range of tabletop solutions means that less bench top is taken up. Handy switchable door hinges allow for flexibility in machine placement wherever you need your NESCAFÉ ALEGRIA system to fit.

With an unrivalled range of quality products, the NESCAFÉ ALEGRIA machine offers café-style menu selections, including long black coffee, flat white, cappuccino, espresso, latte, mocha and everyone's winter favourite, hot chocolate, all at the simple touch of a button.

When there is a need to serve copious amounts of black coffee and fast, then the NESCAFÉ ALEGRIA V-Café is the perfect solution. Straightforward to operate, an easy to clean closed system and patented dispensing process ensures that using the machine couldn't be simpler.

Fast, reliable and durable high capacity mixing unit systems guarantee total flexibility with coffee menu options and environmentally friendly advanced cooling technology gives you peace of mind to know a great tasting, perfect temperature coffee is served every time.

Plus, with a patented product pump to achieve full evacuation and a clear side panel to monitor the amount of coffee dispensed, you can be certain of portion cup control, with no hassle and zero waste.

Pure coffee, quality ingredients

Being Australia's #1 coffee⁵ NESCAFÉ is a trusted brand that consumers know and love. What's more, NESCAFÉ is reassuringly made from nothing but 100% high-quality natural coffee beans. Slow roasted and ground, freshly brewed and then dried into granules, to deliver a delicious, full flavour with an irresistible aroma.

But it's about more than just best quality beverages in a cup. With more than 75 years of NESCAFÉ expertise, our long-standing commitment to coffee has its foundations embedded in a genuine care for sustainability.



Having the largest geographical footprint in the NESCAFÉ portfolio, NESCAFÉ ALEGRIA solutions are used in over 110 countries worldwide to serve up simply great coffee. With these global consumption levels comes respect for the environment at every step and we do this by using the most efficient technologies, optimising energy and water consumption and using sustainably managed renewable energy sources. On a local level, at our NESCAFÉ coffee production plant in Gympie, Queensland, 70% of onsite energy consumption is now from renewable resources, due to recovering value from coffee ground byproducts.

From bean to cup, you can be assured of serving up beverages of the highest standard, produced sustainably and ethically.

Dedicated service support

Not only does NESCAFÉ ALEGRIA deliver hassle-free, quality coffee at the touch of a button, the Nestlé Professional CaféCare service support means that everything runs smoothly and your equipment operates efficiently.

A nationwide team of experts will provide you with ongoing technical support and insightful advice, tailored to your specific needs. CaféCare services we provide include:

- · Friendly, efficient customer service.
- · Machine installation.
- 24/7 technical support.
- Preventative maintenance checks so your coffee is always the best quality.
- Training for your staff, provided by our beverage experts.

Wherever and whenever you want to serve great coffee, the NESCAFÉ ALEGRIA range from Nestlé Professional is the perfect partner to deliver for your healthcare site.



Talk to Nestlé Professional about serving up products ideally suited to your needs on **1800 20 30 50** or visit **nestleprofessional.com**

View for references or directly here **bitly link**



Brands you can trust to serve up healthcare solutions



Complete solutions to offer simply better beverages, wherever you need to serve them.

- Reliable and consistent beverage systems
- ✓ 100% easy to use, operate and maintain
- Great variety of hot beverages at the touch of a button
- ✔ Peace of mind with service and support from Nestlé Professional



A versatile range of delicious protein enriched desserts packed with benefits.

- ✓ Source of protein* to help build and repair body tissues and maintain muscle mass
- ✓ Source of Calcium* for strong bones
- Soft texture to suit modified diets
- ✓ Great range of flavours to increase appetite appeal and desirability
- ✓ Gluten free

Talk to us about serving up products ideally suited to your site needs.

^{*} Per 120g serve (prepared with full cream milk) when consumed as part of a healthy diet that includes a variety of foods.

^{**} At least one and a half times the protein per serve of our NESTLÉ Docello® Panna Cotta, Creme Brulee and No Bake Egg Custard Desserts when prepared as directed.







FOOD SERVICES MARKETPLACE



Accessible Nutrition for Australia's Ageing Population

One of the biggest challenges facing Australia is that of the nation's ageing population.

ver the next several decades, population ageing is projected to have significant implications for Australia's economic, infrastructure, social and health needs. Solutions and strategies need to be put in place to combat these challenges and encourage positive ageing.

One of the issues associated with the ageing population is the provision of accessible and quality nutrition. We know that the number of people in Australia aged 65 and over has tripled in the last fifty years, rising to 3.4 million in 20141 (over 14% of the population). The most commonly reported condition affecting half of all people aged 65 and over2+ is arthritis.

Unfortunately, Australia's oldest demographic segments are often overlooked when it comes to nutrition and packaging design.

Hard-to-open food packaging is not uncommon, especially in aged care and hospital facilities. This represents a source of frustration for patients and a potential barrier to nutrition.

The SPC ProVital range of high quality, portion control fruit cups has been specifically designed for Australia's ageing population, in collaboration with leading health care professionals. The range provides accessible and nutritious fruit snacks to patients with fine motor skills difficulties and/or difficulty swallowing.

Three NEW flavours - Apple & Strawberry, Apple & Banana, and Peach & Vanilla - are also being introduced to the SPC ProVital puree range from June 2016 offering even more variety for menu rotation and a wider range of delicious and nutritious options for patients.

- Key feature of the SPC ProVital portion control fruit cups:
 - Portion controlled to deliver one serve of fruit
 - Clear instructions for opening
 - A textured and lengthened pull tab for easier grip
- Optimised seal to reduce opening force
- Decagon shape for easier grip
- Smaller grip span for easier hold
- Easy to locate and read best before date
- Extra-large font for improved legibility

References

- 1. Australian Institute of Health and Welfare 2015 (http://www.aihw.gov.au/ageing/) Accessed 23 September 2015.
- 2. AIHW 2014. Australia's health 2014. Australia's health no. 14. Cat. no. AUS 178. Canberra: AIHW.

About SPC

SPC Ardmona has been committed to bringing premium packed fruit and vegetables to Australians for nearly 100 years. The company's iconic food brands, Ardmona®, GOULBURN VALLEY®, IXL®, SPC® and TAYLOR'S® are strong

performers in their product categories and are further developed and supported by continued investments in both marketing and product innovations. SPC Ardmona is owned by Australian-listed company Coca-Cola Amatil.

About SPC ProVital: SPC ProVital delivers a range of expertly tailored and nutritionally optimised fruit products to help you maintain

vitality, health and wellness, while enjoying the delicious taste of Australian fruits.

About SPC ProVital: SPC ProVital delivers a range of expertly tailored and nutritionally optimised fruit products to help you maintain vitality, health and wellness, while enjoying the delicious taste of Australian fruits.

SPC ProVital is a trade mark of SPC Ardmona



To place an order please contact your preferred local distributor. For further product information, please contact SPC on **1800 805 168.**



3 delicious new Australian fruit purees



Easy open packaging

MORE MENU

-s ~

Suitable for Texture C Diets

Made from 100% Australian Fruit

V

More variety for optimum menu rotation



To place an order please contact your preferred local distributor.

For further product information please contact SPC on 1800 805 168

www.spc.com.au

Keeping Food Safe for Residents in Aged Care Facilities

Food poisoning affects over 5 million Australians annually and symptoms can be serious, particularly amongst vulnerable populations. Residents in aged care facilities are particularly at risk due to potentially lower immunity, changes to the gastrointestinal tract associated with aging and/or lower body weight.

ood borne illnesses from unsafe food can cause acute issues (diarrhoea, vomiting; fever); lifelong issues (kidney injury; brain and nerve damage); and in some cases death

Research by Australian National University identified 86 deaths in Australia due to food borne illness in 2010. While most food borne illness occurs in the home, it has been previously estimated that 35% of deaths resulting from food poisoning complications, were due to outbreaks in hospitals and aged care facilities.1 It is important, residential aged care facilities (RACFs) emphasise good food safety practices to protect resident and staff health and safety, and the facility's reputation.

How does food borne illness happen?

Bacteria, parasites and viruses can contaminate food and cause food borne illness. Bacteria are the most common cause of food borne illness. Listeria and salmonella are among the most common bacterial pathogens causing food poisoning. Most food we eat contains very small amounts of potentially hazardous pathogens. It is when food has been contaminated with large amounts of these pathogens or pathogens have been allowed to multiply to unsafe levels, that food becomes dangerous to consume.

How can we prevent contamination?

Contaminated food is one major cause of gastroenteritis in elderly people. Early recognition of outbreaks and implementation of control measures are key to reducing effects of food poisoning outbreaks for RACFs residents and staff.

We can prevent pathogens contaminating food by:

- · Ensuring food handlers maintain good personal hygiene.
- Keeping food covered.
- · Maintaining cleaned, sanitised environments (including kitchen, storage areas and dining areas).
- Having good pest control procedures in place.

How can we prevent bacteria arowing to unsafe levels?

The bacteria that causes food borne illness, thrives and multiplies in the "temperature danger zone" (5°C to 60°C).

We can prevent bacteria growing to unsafe levels by:

- Minimising time high risk food spends in the temperature danger zone.
- · Cooking and reheating food to at least
- Storing high risk foods below 5°C.
- Placing cooling foods in the fridge as soon as they have stopped steaming, not leaving them to fully cool on the bench.
- Defrosting foods in the fridge or in a microwave and not defrosting foods on kitchen benches at room temperature.

References

- Dalton, C., Gregory, J., Kirk, M., Stafford, R., Kraa, E., Gould, D. Foodbourne disease outbreaks in Australia, 1995 to 2000. Communicable Diseases Intelligence Volume 28 No 2, June 2004.
- Kirk, Martyn; et al. "Foodborne illness in Australia: Annual incidence circa 2010 pp7-9". Australia Department of Health. Australian National University.2014.

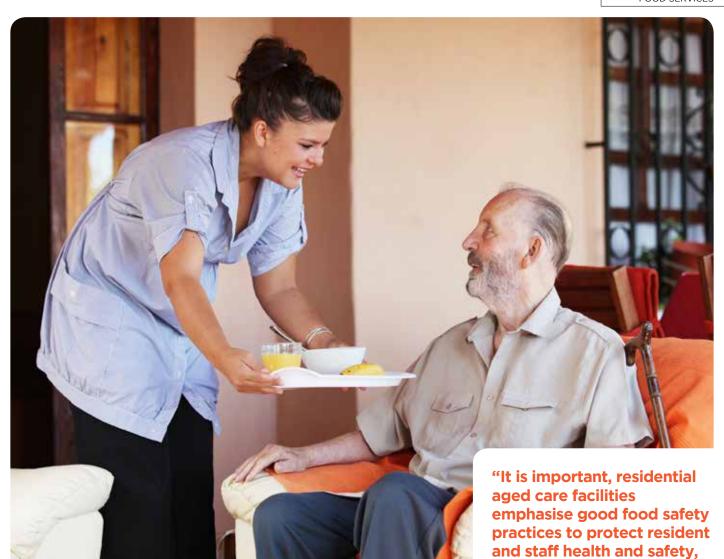
How can RACFs minimise food safety risk?

Good food safety is not a kitchen staff responsibility. Good food safety practices are essential from when food is delivered to your facility to when dining rooms are been cleaned after meals. RACFs have an obligation to have in place and implement, policies and procedures to ensure high-quality food safety practices are maintained. RACFs should consider the following to be essential:

- Have an up-to-date regularly reviewed food safety program which meets state and national requirements.
- Provide regular safe food handling training for all staff.
- Maintain an approved suppliers list; check foods at delivery.
- Do regular internal food safety audits.
- Ensure someone is responsible for checking all record sheets to assist with early identification of non-compliance and need for corrective action.
- · Provide an environment which is supportive of staff reporting potential food safety issues.
- Do not allow staff to work as food handlers when they have/ potentially have a food borne or contagious illness.



NAQ Nutrition provides food safety training, auditing and consultancy services. For more information visit: www.naqld.org/foodsafety



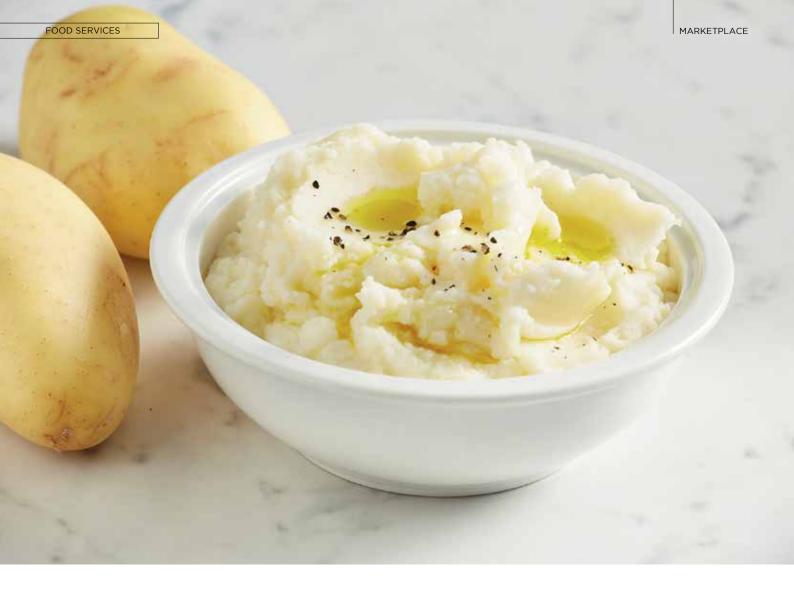




and the facility's reputation."

Amelia Webster

Amelia Webster is an Accredited Practising Dietitian (APD), Sports Dietitian and Trainer & Assessor for NAQ Nutrition (the Queensland Division of Nutrition Australia). Amelia delivers Food Safety Supervisor training along with other non-accredited training in nutrition and food safety, including menu planning, to both the health and community services sector, including aged care, and the retail and hospitality sector.



All Natural Kitchen

- Your Second Chef.

Would you like to focus more on your patrons, patients and residents and add value to their dining experience? LOOK NO FURTHER... than All Natural Kitchen.

e provide freshly cooked, healthy and delicious menu items that allow your chef to do what they do best; adding special touches and taking away the strain of the day to day.

Founded in 1994, All Natural Kitchen is a Food Manufacturing and Food Processing kitchen situated in the heart of the Sutherland Shire, Sydney NSW. Our flexible team of skilled chefs and personnel has been supplying NSW Health and Aged Care Facilities for nearly 20 years.

As the name suggests, we pride ourselves on providing quality cost driven vegetable products, using natural, fresh ingredients, delivered fresh daily. We also make Soups, Sauces, Dips and a High Cling and Gourmet Mayonnaises.

Our qualified chefs can create items to your individual specifications and nutritional profiles or, recreate your favourite recipes in our

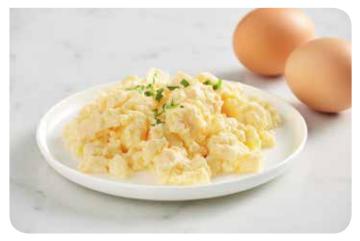
traditional kitchen facility. We are small enough to be very versatile and large enough to handle the largest of jobs. This means better taste, quality, price, personalised service and customer satisfaction. Inventory management and waste is also a benefit in outsourcing your needs to All Natural Kitchen.

We offer Solutions not just great products!

Using a HACCP and NSW Food Authority approved *Cook Chill System*, we can offer extended shelf life on most fresh products from 16 to 42 days. Most of our products are available frozen, ensuring you have enough product to meet all of your catering, manufacturing, meal preparation and food service needs.

Our own fleet of refrigerated trucks and vans, can deliver directly to your door, within 100kms of the Sydney CBD or by one of our









trusted distributors.

"We provide a proven quality product coupled with great personalised service. We can tailor-make food products to the customer's individual needs, specifications and nutritional profile and we are continuously evolving our catalogue, increasing our product range, so that we can provide you with innovative and seasonal menu suggestions to enhance your customers dining pleasure." says Colin Hart, General Manager.

"All Natural Kitchen offers a range of catering solutions from Breakfast (Fresh, Scrambled Eggs or Rolled Oats), Lunch and Dinner (Steamed Rice, Mashed Potato, Mash Sweet Potato, Mash Pumpkin, Steamed Vegetables and Sauces) through to Desserts (Custards and Mousse) and all in between."

"Our scrambled eggs are made from real eggs and milk. The milk is sourced from a local dairy in New South Wales, which supports local industry and ensures the highest quality. Vegetables are prepared as ordered, from an independent local provider, and delivered "Just in Time" this ensures that our products are as fresh as can be, maximising shelf life and providing employment for the local communities," Colin says.

Colin understands how costly it is to run a kitchen. "Labor and cost-per-portion are the two main expenses that a kitchen deals with on a daily basis, "I have recently done costings on what I

believe it would cost to produce fresh product like our Real Mash Potato, in-house. I believe we can save you up to 70% per serve, and you are still providing a fresh, great tasting nutritionally guaranteed meal," he says.

"I also understand that the chef still wants to have creative control, that's why I believe our "staples" can free up some of the chef's time, so that they can add their touches to make the dish their own."

"We can assist with waste too. Providing products in convenient sized packaging, so you only need to use what you need to satisfy your service. And if needed additional cooked, ready to go product, is right there where you need it to be!"

"At All Natural Kitchen we conduct regular in-house organoleptic panels, with the staff responsible for the end product," says Colin.

"This ensures our products are as good as they can be! The team discusses the products and ways to improve the taste or process, if required. This gives the team skin in the game and ownership. It's that level of care, passion and commitment that I believe working with a small dedicated Company provides, which may be lost with some of the larger players."

"With our focus on fresh quality products and customer satisfaction, All Natural Kitchen is Your Second Chef...Naturally!"



For more information please visit

www.allnaturalkitchen.com.au email

Admin@allnaturalkitchen.com.au or call (02) 9524 6511

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For support service managers and staff in hospitals and aged care facilities



Relationship-based Procurement

Building on the strengths of partnership

At SummitCare, our procurement process is largely relationship-based so rather than thinking of our suppliers as contractors we think of them as specialists in their area or, 'consultants'.

or example we have been operating for fifty years and we have used the same cleaning company for over twenty. So when we were looking to build a new facility we asked them, "can you have a look at the plans for this new building and tell us whether you think it meets your needs and tell us what you would do differently?"

To clean this building efficiently they identified the need for more cupboards to store the large cleaning machines and more power points. This might seem minor, but was very helpful to us and gave them confidence to start using the reputation they have with us to leverage other business. So rather than thinking of tendering as a process that occurs after the build, if you involve your good contractors and elevate them to consultant level at the design stage you get a win-win and that's the foundation of relation-based procurement.

Needlessly bumping suppliers in and out of contracts just ends up making lawyers wealthy. We have changed contractors reluctantly when they have not been performing well in traffic light system of reporting but in my experience, if the cleaning is not working at your aged care centre, hitting your contractor over the head with a contract does not really affect the outcome you want. Generally, we want our contractors to be with us long-term and to elevate them to consultants on our new builds. When you put the relationship front and centre, this is where you see the true value.

Relationship-based Reliances

A number of times we've had to call on our contract cleaner to do things at the last

minute and this is where relationship-based reliances come into play. I'll give you an example of a recent conversation between myself and our cleaners.

"It's 5 o'clock on a Friday afternoon – we've just had a major emergency, could you come out?"

"Yep, no problem. I'll stop what I was doing and come right away and fix the problem that's happening at your facility."

This kind of relationship-based reliance, in my experience in aged care, is of far greater value than if we had no relationship with this company and had to rely entirely on the formal contract, requiring us to negotiate on every point.

Of course price is important but is often given disproportionate consideration in the tendering process over other things like relationship reliance, reputation, the company's understanding of aged care and respect for residents. These things are often hard to quantify but we know are really important in longer term contracts to achieve quality for aged-care outcomes.

Of course price is important but switching contractors in and out of agreements is a very expensive exercise. We have done it reluctantly with contractors who have not been performing well in the green, amber and red traffic light system of reporting. Generally, however, we want our contractors to be long-term and to elevate them to status of trusted consultants.

New Equipment

When I am sourcing new equipment for

a facility I find that talking with my peers in the industry is a good starting point for new equipment purchases. In aged care there is good communication and honesty between senior management that allows this to happen. So we see relationship-reliance coming to the fore here again as relying on each other's referrals, shortcuts what would otherwise be a blind procurement process.

There is also a lot to be said for enthusiastic and passionate suppliers who provide information about products that we may not necessarily need at the time but we may have use for in the future.

So relationship-reliance works a number of ways; with your suppliers and with your peers.

In my three and a half years heading up procurement at Summit I have never had to run a formal tender with untested suppliers. For example, we have moved our clinical care systems, as is the case with most aged care providers in Australia, to an electronic platform for resident's files. We looked to other aged care providers and unlike other industries, we freely exchange ideas about 'best in breed' and rely on this third party referral.

Outside the Box

Small works building contractors who really "get" aged care can be hard to identify. At times this has meant sourcing a contractor with no experience in aged care and educating them about the nuances of operating in aged-care centre 24/7.

For example, we moved away from standard pool fencing to a smarter and less



institutional-looking glass. To do this we looked outside traditional channels and chose to work with a glass balustrade manufacturer and installer with a good reputation for high rise residential buildings and shopping centres. We educated them about working in an operational aged-care facility with vulnerable residents, some with dementia, and they embraced the opportunity and it was a great experience for both us and them. Finding a supplier who is willing to go on this journey with us is key to our selection criteria.

Innovations

We look for contractors who can add value to their goods or service above and beyond their competitors. Our landscapers, for example, make three suggestions to us per month and this is built into the KPIs for their staff. Some of these suggestions have been about screening areas, replacing plants etc., and we like working with an innovative

company who demonstrates a culture of continuous improvement.

This company was also prepared to send their staff on a dementia-awareness training course. This assured us their grounds staff, working in our centres, would have a clear understanding of dementia. And this has worked very well. They know how to approach people with dementia and rather than be afraid of them, they engage them in gardening projects etc.

There are many different approaches to procurement depending on the industry but I have found the relationship-based model to demonstrate the best value for Summit Care. Valuing our contractors as consultants and specialists, understanding what they do, going on a journey with them and investing the time to educate them in the nuances of aged care has been a very successful model for us.



John Engeler

John Engeler joined SummitCare, a leading provider of Residential Aged Care in Sydney & the Hunter in 2012. He previously worked in disability care, support and advocacy across a number of areas, but primarily accommodation related projects and property development.

One of his direct areas of responsibility at SummitCare is Procurement, so he is very well placed to discuss procurement in the Healthcare sector today, especially as SummitCare begins construction of a new 200 bed facility in North-Western Sydney.

Relationship-based Procurement







Puts the relationship front-and-centre



Adds value to your business and your consultant's business



Builds strong links with industry peers through third party referrals



Promotes invested and innovative consultants who are willing to take the journey with you

PROCUREMENT MARKETPLACE



A turn for the better

- for patients and staff

The way in which a Critical Care or ICU Bed turns, is not only absolutely critical to the safety of the patient, but the Nurses, Surgeons and Care staff that attend to the patient.

he Multicare critical care bed, when used in the critical care setting can provide a number of clinical and manual handling benefits. The clinical features include advantages for fine tuned patient positioning prior to clinical procedures and a reduction in preventable patient complications (such as respiratory and pressure related tissue injuries). Additionally, the safety and well being of the care staff, not only to aid the patient, but to protect against back injury is an integral feature of the MutiCare Critical Care Bed. The following article will outline the advantages for nursing and other operational support staff, as the Multicare bed can achieve a true lying surface lateral tilt without physical exertion. There are 2 key factors as to how the Multicare provides maximum safety of the patient and Care Staff

- The Multicare is a unique and intelligent bed capable of finely tuned patient posturing for critical care invasive procedures whilst still providing pressure area care and metrics such as weight
- The Multicare has a number of clinical, safety and logistical benefits for patients, staff and management

Patient Benefits

Automatic Lateral Therapy (ALT) Lack of movement puts patients in critical and intensive care units in danger of a number of medical complications. Reduction of the residual pulmonary capacity, atelectasis and pneumonia are serious medical complications that affect the respiratory tract of longterm immobile patients. The positioning of the patient plays an important preventative role here.

- Ergoframe enables Easier breathing, eating & torso wound healing without additional complications are key benefits (diaphragmatic splinting & additional pain). The orthopneic chair® position created by the Ergoframe® mattress platform is intended mainly for patients with resting dyspnea, facilitating respiration. It combines a high Fowler's position, pressure reduction in the abdominal area for easier deep breathing and foot support, allowing the use of additional breathing muscles.
- Platform Based True lateral tilt will reduce inherent risks of manual handling (shearing/uncontrolled musculoskeletal movement), procedures & repositioning made easier & include pressure reduction
- Side rail/Bed Exit Alarm/iBrake reduced falls risk, tilt inactivated when side rail down

Surgeon, Nurse and Staff Benefits

Nursing is one of the professions with the highest risk of back pain. This is usually caused by the strain endured during positioning of heavy patients while providing care. Lateral tilt of the bed can help significantly in these situations. Work becomes much easier with automatic bed function, which also reduces the potential risk of human error.

- Lateral tilt reduced physical manual handling for procedures & Pressure Injury prevention (Refer to figure 1.0)
- iDrive safer, easier & quicker transport
- Ergoframe reduced manual repositioning
- Digital data display simple & accurate tilt measurement



The Multicare is an ICU and Crtical Care Bed which is widely used across the world. More



Designed to be ergonomically friendly, the tilt function, utilised in one easy touch, allows for the patient to be managed and handled with significantly less strain. With Genuine Lateral Tilt, the requirement for nurses to bend their back while reaching over to attend to the patient, is entirely removed. The benefits for patient recovery will exceed the expectations of your ward with the following features:

- Easier breathing
- Pressure injury prevention
- Falls prevention
- Prevention of pulmonary complications
- Safe X-Raying

The Multicare's innovative design has incorporated Staff Safety and patient recovery to create an optimal Critical Bed for your hospital.

BACK INJURIES ERGONOMICALLY CORRECT ERGONOMICALLY INCORRECT The Multicare bed with the lateral tilt. A bed without the lateral tilt. A huge risk of back injury in the lumbar area.

Nurses and care staff are highly susceptible to back injuries. With Patient Handling a key factor in the increased risk of injury, the Multicare's genuine lateral tilt is an ergonomic function that significantly reduces the physical strain when handling a patient.

The Multicare is specifically designed to care for both patient and staff - ask us for more information via sales@acigroupaustralia.com.au or call us on 1800 429 117.



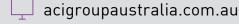
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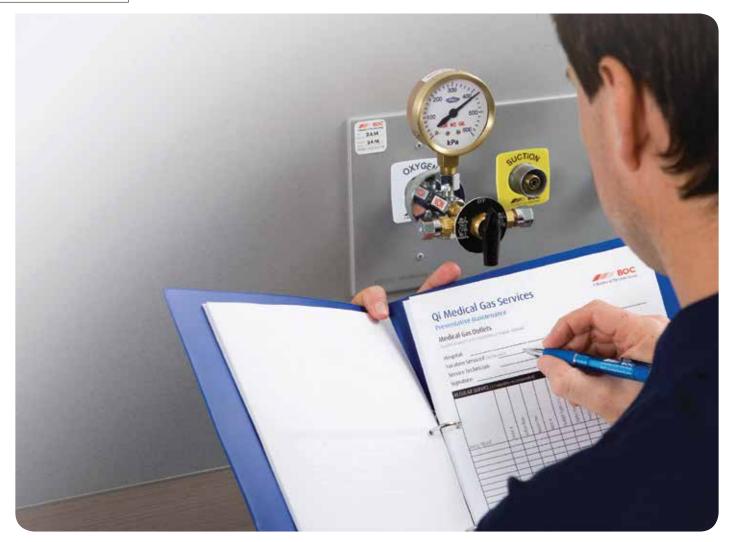
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MEDICAL GASES MARKETPLACE



Qi Medical Gas Services

Preventive Maintenance. Compliance, safety, reliability and efficiency.

ith over 60 years experience providing gas solutions and support, BOC's Qi Maintenance program's dedicated resources are backed by the technical expertise and professional standards that the hospital environment demands.

The development and maintenance of a hospital's medical gas system is Qi. Australian Standards (AS) and equipment manufacturer recommendations form BOC's benchmark for service. Our routine maintenance tasks are performed to BOC best operating practice which meet these requirements.

Depending on the design of your individual system, BOC can customise a program that includes 12 monthly service and maintenance of your hospital's medical gas reticulation system, including surgical

tool control units, medical gas pendants, regulators, flow meters, compressors, vacuum plant and other medical gas related equipment.

BOC's preventive maintenance program is designed to operate efficiently and improve the life of your medical gas system. Creating a robust and reliable system avoids unplanned interruptions to supply, builds system confidence and contributes towards greater patient safety.

Maintenance plans are carried out by our skilled service technicians according to applicable standards and the manufacturers' servicing recommendations. The service of your equipment at regular intervals includes testing, maintenance repair, parts replacement and tuning.

With our broad Qi Medical Gas Services

portfolio, BOC can help you meet the considerable challenges of compliance and safety in today's healthcare environment. At the same time, we provide balanced insight and flexible tools to improve control and coordination of medical gases throughout your facility.

Ask us how we can help you manage your servicing needs with a tailored servicing and repair plan for best practice preventive maintenance for:

- Gas manifolds
- Zone isolation boxes
- Breathing air testing
- Medical Gas Devices
- Medical gas alarms
- Medical gas outlets
- MedAir Plant and MedVac Plant

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Thor Hansen

Manager Contracts & Purchasing, City of Casey

PROCUREMENT MARKETPLACE

Go online

to view how smoothly and

efficiently the

vertical bed

operates

icking concep

Don't Put A Band-Aid on **HOSPITAL BED STORAGE**

You Could Use a

Enjoy maximised space and increased safety & efficiency with the use of the Bedlift, a vertical storage solution that will clear hallways of unused hospital beds. It will also increase storage capacity in the maintenance department while simultaneously maximising the number of beds available to patients at all times.



This bed stacking system is based on a last in/first out (LIFO) storage and retrieval concept. When the first bed is wheeled onto the lift and raised it

opens up a space beneath it for the next unit. The entire operation can be accomplished by pushing a button.

Benefits

- · Recoup floor space previously used to store the hospital beds
- · Safely secures beds so that they won't clutter up corridors and storage areas
- Centralises hospital bed storage area so that you always know where they are

HH1503MH

MATERIALS Handling working with ease...

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Automated Bedlifts Provide More Hospital Floor Space

aterials Handling's Bedlift Vertical Storage solution aims to meet one main goal: maximizing hospital floor space in the most efficient way possible. The Bedlift is a space saving vertical storage solution and a cost effective way to remove unused "hallway beds" from hospital corridors as pictured above and store them in a neat and easy to access fashion.

Stacking unused beds vertically in a secure storage system will recover valuable floor space by reducing hallway clutter and removing potential fire hazards from hospital corridors. By using Bedlift, hospital maintenance departments will see a dramatic increase in storage capacity, organization and product flow, which will reduce down time and increase the number of beds available to patients.

In addition to increasing space and efficiency, removing unused beds from hallways reduces hazards, which will allow hospitals to meet or continue to meet standards regarding the storage of hospital beds.

These unique vertical stackers will also improve hospital's maintenance departments' capacity, organisation and product flow whilst reducing down time. This critically increases the number of beds available for patient use at any given moment.

Bedlifts are simple to use, and can be operated by a single person with the push of a button. Operating on the last in first out (LIFO) picking concept, the first bed is loaded onto the lift and raised vertically, which opens up space below the bed for the next unit. Available in heights of up to 3.8metres, you can select the height that fits your need best. Choose from models that can hold three, four or five beds with optional security gate to prohibit unauthorized use in public spaces. The Bedlift can store up to 5 hospitals beds vertically in a footprint slightly larger than a single bed for savings in excess of 70% of your existing floor space.

There are two configurations, end or side (lateral) loading and 11 models to suit from large beds to stretchers and are optionally available with Anti-Microbial Paint.

The six major benefits by installing Bedlifts are More Floor Space, Safe Handling, Easy Access, Maximum Storage, Fast Retrieval & Small Footprint.



For more information please visit materialshandling.com.au/products/bedlift/

Choosing Medicines Wisely

The Society of Hospital Pharmacists of Australia (SHPA) is proud to be the first pharmacist member organisation to join Choosing Wisely Australia[®], an initiative of NPS MedicineWise.

HPA is committed to facilitating the safe and effective use of medicines, which is the core business of pharmacists, and recognises that Quality Use of Medicines (QUM) in hospitals is an important contributor to overall health system performance. Medication misadventure and inappropriate use of medicines result in approximately 230,000 hospital admissions in Australia each year, with an estimated annual cost of \$1.2 billion to the healthcare system.

In this issue of AHHB, a number of Choosing Wisely recommendations, related to the use of antibiotics, are discussed (**see page 36-37**) and these may provide a fresh approach for antimicrobial stewardship in hospitals and the community.

In essence, QUM is about choosing ALL medicines wisely, based on the available evidence. SHPA's five Choosing Wisely statements reflect the need for judicious selection of treatment options, and this

may include choosing to not prescribe medicine.

The statements were developed through an extensive consultation process. Over 40 statements with supportive evidence were proposed to SHPA's working party indicating our member's interest in the better use of medicines across our health system. A shortlist of 10 statements were then considered by SHPA's membership and the final five ratified by SHPA's Federal Council.

SHPA's five statements are:

 Don't initiate and continue medicines for primary prevention, in individuals who have a limited life expectancy.

The proactive de-prescribing of medicines no longer required or of benefit to the patient, is integral to end-of-life care and advance care planning. Estimates of the cost of potentially inappropriate medicines accessed through the PBS in older patients is between \$240 and \$450 million each year.

- 2 Don't initiate an antibiotic without an identified indication and a predetermined length of treatment or review date. (see page 36)
- 3 Don't initiate and continue antipsychotic medicines for behavioural and psychological symptoms of dementia for more than 3 months.

Sometimes not using a medicine is the best choice. Antipsychotic medicines should only be considered

when non-pharmacological interventions have failed and the patient has symptoms that are distressing for them, their family or co-residents.

- 4 Don't recommend the regular use of oral non-steroidal anti-inflammatory medicines (NSAIDs) in older people.

 NSAIDs should not be recommended without consideration of the patient's additional disease or conditions such as: kidney disease, a history of peptic ulcer disease, hypertension or heart failure.
- 5 Don't recommend the use of medicines with sub-therapeutic doses of codeine (<30mg for adults) for mild to moderate pain.

 There is evidence that doses of codeine less than 30mg every 6 hours are no more effective than paracetamol or an NSAID alone.

 Combination analgesics with low dose codeine should not be recommended for mild to moderate pain.



Kristin Michaels
CEO Society of Hospital
Pharmacists of Australia

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 both the 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.



Full details about SHPA's Choosing Wisely Australia recommendations are available at **www.choosingwisely.org.au/recommendations/shpa**

More information about SHPA's involvement with Choosing Wisely Australia is available at **www.shpa.org.au/SHPA**

AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

Australian Commission on Safety and Quality in Health Care Feature

Standardising on-screen medicines information for safety

Medication errors are a common type of healthcare incident in Australian hospitals and can contribute to patient harm and serious adverse events.

lectronic health systems provide opportunities to improve patient care. However, medicines information in electronic health systems must be clearly presented to realise the benefit of clinical information systems.

Prescription information is relayed via several steps through to the administration of medicines, and the language and presentation of this medicines information is critical. Providing standardised and consistent medicines information in electronic medicines recording and management systems (EMM) has the potential to reduce medication errors and minimise patient harm.

EMM offers many benefits to patient care, including legibility, auditability, dosing and decision support. However, one of the most challenging aspects of EMM is the transfer of existing medication management processes to the digital space. New types of errors can result from problematic on-screen presentation following the implementation of clinical information systems. The benefits of EMM can only be realised if the medicines information is relayed precisely, without ambiguity.

The Australian Commission on Safety and Quality in Health Care (the Commission) provides a number of standardised tools to support medicines management in hospitals. These include the national inpatient medication chart, Tall Man lettering and standard terms and abbreviations, as well as a guide for the safe implementation of EMM in hospitals.

In March 2016, the Commission published the National guidelines for on-screen display of clinical medicines information. These evidence-based guidelines were developed with the support of the National eHealth Transition Authority (NEHTA) and the Australian Government Department of Health.

The guidelines form a platform for health services and clinical information system suppliers in their continued implementation of electronic medication management. This consistent national approach seeks to reduce duplicated implementation effort across health services.

The guidelines apply to the display of medicines information in clinical information systems across the healthcare continuum: acute health services; general practice prescribing; aged care electronic medication charts and ordering systems; community health services; mental health services; hospital and community pharmacies; and dental and allied health services.

The guidelines include recommendations to:

- · specify test display
- use full medicine names
- display prescription elements in a consistent format and standard order
- avoid abbreviations
- use spacing and labels to differentiate display elements.

The latter is particularly important in presenting numbers on-screen, as a prescription, or medication order, regularly contains at least three numbers) strength, dose and supply quantity).

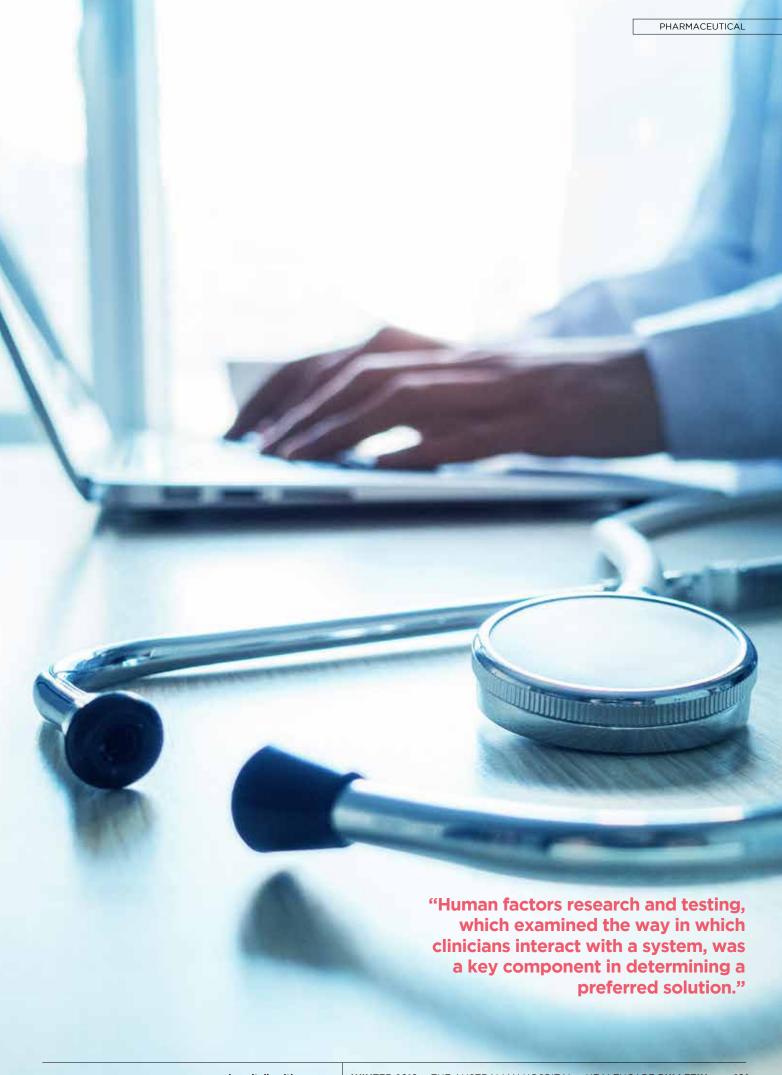
The commission drew on national and international evidence in developing the guidelines. Human factors research and testing, which examined the way in which clinicians interact with a system, was a key component in determining a preferred solution.

An addendum to the clinical guidelines for on-screen display of consumer medicines information will draw on the recommendations and rationales within the clinical guidelines, and is expected to be published mid-2016.

For further information on the Commission's work on electronic medication management as part of medication safety visit www. safetyandquality.gov.au/our-work/medication-safety/electronic-medication-management-systems/

FAST FACTS

- Electronic medicines recording and management systems (EMM) has the potential to reduce medication errors and minimise patient harm.
- ➤ There are challenges related to EMM and the benefits can only be realised if the medicines information is relayed precisely, without ambiguity.
- ➤ The National guidelines for onscreen display of clinical medicines information forms a platform for health services and clinical information system suppliers in their continued implementation of electronic medication management.
- This consistent national approach seeks to reduce duplicated implementation effort across health services.

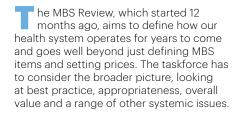




Australian Diagnostic Imaging Association Feature

Breast Cancer Pilot Study: proposed for MBS review

As the health industry reacts to the latest funding cuts, restructure plans and election promises, it's easy to lose sight of something as important as the The Medicare Benefits Schedule (MBS) Review.



It's an opportunity to change the system and put the patient at the forefront.

That is why four peak bodies – Breast Surgeons of Australia and New Zealand, Breast Cancer Network Australia, The Royal Australian and New Zealand College of Radiologists and the Australian Diagnostic Imaging Association – have approached the Federal Health Minister urging her to commission a pilot study which would look at how to improve the effectiveness of breast cancer imaging from a patient's perspective.

Breast cancer is now the most common cancer affecting Australian women, with a 1 in 8 lifetime risk of developing the disease, and high-quality, affordable, diagnostic imaging is simply crucial in detecting, treating and monitoring this condition.

Consulting surgeon and leading breast cancer researcher Professor Christobel Saunders knows through long experience how vital imaging is.

"To get a really good surgical outcome what we need to know is exactly where

the tumour is, how many tumours there are and what size they are so we can guide treatment," she said.

"But still for a percentage of women the current imaging we have (covered by the MBS) is not good enough," she said.

The pilot study proposed would not only help improve the rates for early diagnosis and treatment of breast cancer patients, but it would also provide insight and benefits that could be applied to virtually any patient group.

Simply put, the concept is to detail the patient's journey, identify the hurdles they face and devise ways of eliminating or minimising these problems.

Patients diagnosed with breast cancer encounter many different diagnostic imaging services – mammography, breast tomosynthesis, diagnostic ultrasound, ultrasound-guided biopsy or fine needle aspiration, and MRI – and I have seen that the journey is often unnecessarily confusing, expensive and distressing due to the complexity and illogicality of the current Medicare funding and rules.

Consider some specific examples:

- Most women with breast cancer symptoms are referred for a diagnostic mammogram. This has an inadequate rebate of \$76.10 and one of the lowest bulk billing rates of all imaging procedures (around 50%) so patients immediately face a significant financial hurdle. Every day patients are paying gaps of \$100 or more even in 'bulk billing' practices. Confronted with costs that high, how many women delay their treatment or simply cross their fingers and hope for the best?
- The result of a mammogram and ultrasound may indicate the need for an ultrasound-guided core biopsy or fine needle aspiration (FNA). However, more and more women referred for a diagnostic breast ultrasound are attending practices that do not have a radiologist on site, due to loopholes in the professional supervision rules. If a core biopsy or FNA is required, the woman may be asked to attend a different practice for the service, and she would

"...I have seen that the journey is often unnecessarily confusing, expensive and distressing due to the complexity and illogicality of the current Medicare funding and rules."





often have the diagnostic ultrasound unnecessarily repeated.

- A diagnostic ultrasound can often indicate that a core biopsy or FNA should be conducted. However, Medicare will not fund a core biopsy or FNA on the same day as a diagnostic ultrasound, so patients eager to progress their diagnosis and possible treatment face unnecessary frustration and delays, which are compounded if the patient has had to travel a long distance for the service which is often the case for people living in regional and remote areas.
- According to Breast Surgeons of Australia and New Zealand, from the total number of new breast cancer patients some 10-15% are thought to benefit in clinical decision-making by the additional diagnostic information obtained from a breast MRI, but these services are not funded by Medicare. If they can afford it, these patients pay around \$600 for an MRI because to date MSAC has not approved the use of breast MRI for specific limited indications – the MBS is not being kept in line with clinically recommended, cost- effective practice.

The four groups urging the pilot study have knowledge and experience of the current system and have offered to assist the MBS Review working groups in any way. They are also encouraging the involvement of consumers and other groups involved

in breast cancer to ensure the study is comprehensive and effective.

The need for this pilot study is even greater if the next round of cuts currently proposed by Government is taken into account.

With the Federal Government planning to slash \$100 million a year from patient rebates for diagnostic imaging, costs for many breast cancer patients will rise even further. People, who were relying on the bulk- billing system, may be facing out of pocket costs of \$300, as well as 'up-front' fees of more than \$500, just to be diagnosed.

Experience has shown, time and again, that cost is a huge barrier to treatment. It is inevitable that faced with these expenses, many people will simply walk away for the system. Instead of early diagnosis and treatment, their condition will worsen – this is terrible for them and it's also bad for the health system as these people will eventually require more intense and much more expensive treatment.

The MBS Review, which is scheduled to make ongoing recommendations to the Minister, is a rare opportunity to provide sick and worried people with a less challenging journey through the health system by improving the efficiency of services as well as improving the quality of care.

To learn more about how radiology is leading the fight against breast cancer, please visit www.youtube.com/watch?v=8SCNANOuzvA

Dr Christian Wriedt, ADIA President.



Dr Christian Wriedt President of the Australian Diagnostic Imaging Association

ADIA represents medical imaging practices throughout Australia, both in the community and in hospitals, and promotes ongoing development of quality practice standards so doctors and their patients can have certainty of quality, access and delivery of medical imaging services

Visit our website **www.adia.asn.au**



Imagining Age Services

- no borders, no boundaries at LASA National Congress 2016

eeting the aged care needs of our population in a sustainable, efficient and effective way requires ongoing collaboration between aged care, health and hospital services.

As key stakeholders in our industry, people involved in primary and ambulatory care are invited to attend Australia's biggest age services event, LASA National Congress, being held at the Gold Coast 9-12 October 2016.

This year's theme, "Imagining age services: no borders, no boundaries", is about exploring new ways of building a stronger age services industry to meet increasing demand, at a time when reforms and changing social norms are impacting service providers in unprecedented ways.

"Increasing momentum for consumer-driven services and significant reforms occurring in home care is creating new opportunities for age service providers," Congress Organising Committee Chairman, Marcus Riley, said.

"We have seen the power of competition

disrupt other industries in unprecedented ways, overturning existing rules and regulation in favour of improved choice and quality. Aged care is not immune and as an industry we need to be prepared," he said.

The Congress program will feature a number of sessions showcasing unique age service models from overseas and within Australia, and practical information about diversifying services. Program highlights include a panel discussion on advanced care planning, which will address issues such as low uptake of advanced care directives, barriers to achieving palliative care in the home or residential care facility, and the importance of integrating care directives in existing information-sharing systems such as My Health Record.

International experts and recent study tour participants will share their knowledge and learnings from countries including Finland, the USA, England and China in dementia care, accommodation design and disability services.

Concurrent sessions will focus on workforce retention and diversification, the latest in care models, economics, quality and capability.

People who are new to aged care or who wish to expand their professional networks will benefit from attending our corporate speed networking event, designed to help people connect in a valuable and efficient way. With over 1,100 delegates – most whom are executive management or board directors, this is an invaluable way to connect with the leaders and influencers of our industry.

Limited sponsorship and exhibition opportunities are still available and companies wishing to break into aged care or enhance their existing brand reputation are encouraged to contact the LASA events team.



For more information go to www.lasacongress.asn.au

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Telehealth in Transition The importance of telehealth cannot be overstated

This was the key sentiment from the NSW Minister for Health, the Hon. Jillian Skinner MP, at the recent Australian Telehealth Conference 2016. he shift was reflected in many of the discussions at the conference, affirming that telehealth is in a state of transition, with increasing numbers of clinicians advocating for its use.

Associate Professor Andrew Kornberg, Director, RCH Global and Susan Jury, Telehealth Program Manager, from the Royal Children's Hospital (RCH), Melbourne, spoke about the successes and challenges of the wide scale integration of telehealth in a major hospital, and how a bottom-up approach to implementing telehealth was crucial for success. A view echoed by renowned Head of Surgery at Sydney Medical School, Professor Mohamed Khadra, who predicted the emergence of telepresence and artificial intelligence as big players in the future of telehealth.

Among their successes, the RCH reported that telehealth is now embedded in the daily roles of staff, including triaging, booking, rescheduling and billing, and that clinicians are now taking the lead in initiating novel models of care using telehealth – something which they can now get grants to do.

Part of their lessons learnt, included the "little things", such as paperwork errors and cancellations, which are also hindrances in face-to-face consultations. They also acknowledged the constraints imposed by Medicare billing and the additional complexities that arise when local doctors are included in telehealth services.

Answering the question "Is it worth it?" they pointed to children with leukaemia. They described the significant long term, positive psycho-social impact on children and their families, of avoiding repeated visits to hospital by instead receiving locally delivered chemotherapy, with online support from RCH. They also quoted Psychiatrist Dr Campbell Paul and his experience using telehealth.

"I can get a lot more insight than I do seeing a child or young person in my clinic room," he said.

"I get to 'go into their leer' – their 'safe zone'. They can say whatever they feel comfortable saying. They can disconnect if they need to. And I think this means they have more sense of control."

The RCH, who see over 1,000 children per day, reported the results of their most recent survey of regional paediatricians in which 10% responded that they use telehealth "regularly" (once or twice a month) and 40% said that they would like to use telehealth more often.

Julia Martinovich and Chloe Moddel, Telehealth Implementation Officers from the NSW Agency for Clinical Innovation, described the Agency's methodology for developing new models of care in response to requests from across the NSW Health system. The methodology ensures that the underlying problem is clearly identified before a solution is designed; and covers the implementation and sustainability of the solution. Innovations from the work of the Agency have included the Trauma App and the Chronic Pain Telehealth Tool Kit.

Economics Professor Paul Frijters provided a different and provocative perspective on telehealth. He described a Credence Good as one where patients don't know what's wrong with them, what they need and what they get. So in a private healthcare system they tend to be over-treated and overcharged because the diagnosis helps the care provider to make more money. He argued that because health is a Credence Good, it's necessary to separate diagnostic work from the work of the care provider, and that telehealth had the subversive potential to do this. He suggested that unless health policies are developed that dramatically cut costs, private and offshore markets will emerge.

Factors critical for scaling up telehealth and making it part of everyday healthcare were identified during the Panel Session including: making telehealth as simple and as easy as possible; combining top level support with bottom (operational level) initiatives in organisations; setting up facilitator/support positions; and ensuring that health consumers are informed of telehealth options early during the diagnostic phase.

HISA: Australia's Digital Health Agency will use outcomes of the conference to continue to advocate for telehealth.

FAST FACTS

- Telehealth is being used more as a regular part of service delivery and daily staff activities.
- ➤ A bottom-up approach to implementing telehealth is crucial for success.
- Grants are available for innovative models of care using telehealth.
- Challenges include paperwork and scheduling errors and Medicare constraints.
- ➤ Telehealth offers long-term psychosocial benefits for children through remote follow-ups and locally delivered chemo.





"NSW Minister for Health, Jillian Skinner, mentioned the shift from small pilots to having telehealth as a regular part of service delivery, as the release of the NSW Health Telehealth Framework and Implementation Strategy: 2016-2021 was announced."



Dr Louise Schaper

Dr Louise Schaper is CEO of HISA with a passion and enthusiasm for health informatics. With an OT background and a PhD in technology acceptance amongst healthcare professionals, Louise is a world leader in allied health informatics and is intimately connected to Australia's substantial health reform efforts, where e-health is a key enabler to achieving high quality, safe, sustainable and patient-centred care. Louise is part of NEHTA's Clinical Leads team and previously chaired the E-Health International Advisory Group of the World Federation of Occupational Therapists.

Ethics and the Internet - going to the source

In 2009, this column, in a two-part series, contained information about web-based resources on ethics, bioethics, research and clinical ethics. The information was offered to assist readers to find readily accessible and reliable sources of information and guidance for their ethical practice. Some seven years later, it is perhaps time to revisit and update that information.

Professional ethics

The ethics of health professions emerged as those professions sought to identify themselves and what they wished to make distinctive about their membership. The codes of professional ethics continue to serve this purpose and, in Australia, have become increasingly linked to statutory registration and regulation of the conduct of these professions.

The World Medical Association, the Australian Medical Association, the International Council of Nurses and the Australian Nursing and Midwifery Council have published codes of ethics, available, respectively, at:

www.wma.net/ en/30publications/10policies/c8/

www.ama.com.au/tas/ama-code-ethics-2004-editorially-revised-2006

www.icn.ch/ethics.htm

www.nursingmidwiferyboard.gov.au/ Codes-Guidelines-Statements/Codes-Guidelines.aspx#codeofethics

More recently, the Australian Medical Council, whose functions include education of overseas trained doctors and accreditation of Australian medical schools, developed and published a code of good medical practice. The Medical Board of Australia has adopted the code and, as a result, it can be relied upon as evidence of relevant standards of professional practice in proceedings involving doctors. The code is available at www.medicalboard.gov. au/Codes-Guidelines-Policies/Code-of-conduct.aspx.

Bioethics

Since the emergence, about fifty years ago, of bioethics, its importance for national policies in health and its growth as an academic discipline are reflected in the establishment of national advisory bodies, of academic centres.

National bioethics advisory bodies

Many nations have established national bioethics advisory bodies that serve a range of functions, including advice on government policy, response to citizens' requests for information and advice and the development of guidelines on clinical practice and research. The World Health Organization provides a useful list of contact details for many of these bodies:

www.apps.who.int/ethics/ nationalcommittees/

In Australia, the closest equivalent is the Australian Health Ethics Committee, a principal committee of the National Health and Medical Research Council (NHMRC). It advises the Chief Executive Officer of the NHMRC on ethical issues in health and develops ethical guidelines on human research:

www.nhmrc.gov.au/about/nhmrccommittees/australian-health-ethicscommittee-ahec.

Bioethics centres

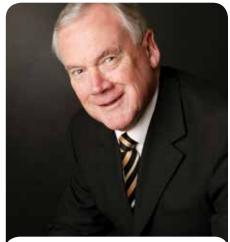
These centres are typically established independently or by universities. A representative list with associated websites can be found at <code>aabhl.org/page/bioethics_centres.html</code>.

Australian academic centres include the Centre for Human Bioethics at Monash University arts.monash.edu.au/bioethics and the Centre for Values, Ethics and the Law in Medicine at the University of Sydney http://sydney.edu.au/medicine/velim/ and independent centres such as the Ethics Centre (formerly known as the St. James Ethics Centre) http://www.ethics.org.au and the Adelaide Centre for Bioethics and Culture http://www.bioethics.org.au.

Internationally, prominent academic centres include those at the University of Pennsylvania www.bioethics.upenn.edu, the Kennedy Institute of Ethics at Georgetown University kennedyinstitute.georgetown.edu, the University of Toronto www.jointcentreforbioethics.ca and the Ethox Centre www.ndph.ox.ac.uk/research/ethox-centre and the Oxford Uehiro Centre for Practical Ethics, www.practicalethics.ox.ac.uk/home both at Oxford University. Independent centres include the Hastings Centre www.thehastingscenter.org and the Nuffield Council on Bioethics www.nuffieldbioethics.org.



"Many nations have established national bioethics advisory bodies that serve a range of functions, including advice on government policy, response to citizens' requests for information and advice and the development of guidelines on clinical practice and research."



Research ethics

The ethics of research involving human participants has been the subject of extensive development of guidelines, legislation and advisory bodies. The common pattern of governance is the reliance on research ethics committees, usually established in universities, hospitals and research institutions, to subject research proposals to prior review in order to decide if they meet the requirements of national and international guidelines such as the Declaration of Helsinki, issued by the World Medical Association.

Websites include www.wma.net/en/30publications/10policies/b3/index.html or the International Ethical Guidelines for Biomedical Research Involving Human Subjects (currently under review) issued by the Council for International Organizations of Medical Sciences www.cioms.ch/final_draft_CIOMS_guidelines-10_september 2015-WITH_WATERMARKS.pdf

The Office for Human Research Protections, the United States of America federal agency that oversights compliance with federal regulations, publishes an compilation of national human research governance that is updated annually: www.hhs.gov/ohrp/international.

In Australia, the relevant national guidelines are contained in the National Statement on Ethical Conduct in Human Research, 2007 (updated 2015), issued by the National Health and Medical Research Council, the Australian Research Council and Universities Australia: www.nhmrc.gov.au/publications/synopses/e72syn.htm. This provides for the institutional establishment of human research ethics committees of which more than 200 are known in Australia.

Clinical ethics

The ethics of clinical practice has more recently been the subject of specific guidance, because the ethics codes of the relevant professions, particularly doctors and nurses, were seen to cover this territory. However, especially in the United States, the practice of using ethics committees to advise and assist health professionals has developed.

Australian examples of this recent attention include those at the New South Wales Department of Health: www.health.nsw.gov.au/clinicalethics/pages/default.aspx, ACT Health http://www.health.act.gov.au/about-us/clinical-ethics-committee and the clinical ethics service at the Royal Children's' Hospital in Melbourne: www.rch.org.au/bioethics/clinical.cfm?doc.id=12222.

Lastly, as a valuable, regular and free service, Ethics and Health Law News - www.ehln.org - provides weekly bulletins of current information and links to sources.

♠ Colin Thomson

BA, LLB, LLM (Sydney) www.ehealthinfo.gov.au

Colin Thomson, BA, LLM (Sydney) is Professor of Law at the University of Wollongong and Academic Leader for Health Law and Ethics in the Graduate School of Medicine. He also works as a consultant.

He was a member of the Medical Research Ethics Committee (1988-91) of the National Health and Medical Research Council and, from 1998-2002 a member, and from 2006-2009, chair of the Australian Health Ethics Committee. As a consultant, he has advised NHMRC, FaHCSIA, Health Departments of NSW, Qld and Vic and several universities. He is a Senior Consultant with Australasian Human Research Ethics Consultancy Services (www.ahrecs.com).

Colin has provided training to human research ethics committees, chairs the CSIRO Social Science HREC and is a member of HRECs at Department of Health and Ageing and University of Wollongong/ Illawarra Shoalhaven LHD.

He is a joint author of Good Medical Practice: professionalism, ethics and law, 2010, Cambridge University Press.



Choosing Wisely Choosing Wisely Australia Feature

Choosing Wisely at Austin Health

The Choosing Wisely initiative was launched in Australia just over 12 months ago and we have recently seen the second wave of recommendations announced in March. These have attracted much interest, as expected, from clinicians, the public and media. All agree that the messages that accompany the recommendations from Choosing Wisely - that it is about delivering evidence based quality care - are important in all areas of health care.

owever, one of the challenges is to move the recommendations from paper and begin to effect change, to influence individuals, GP practices, hospital staff, and health care systems. If we are not all on the same page and have the same goals (safe, effective and efficient care for ALL patients who need it), then changing a whole system to a new paradigm becomes even more challenging than the current status.

At Austin Health, we made the conscious decision to become a "Choosing Wisely Champion Hospital", a term we coined ourselves. Although we have just started the process, that will require years of work, there is much enthusiasm and, in fact, we have found, that all over the hospital, individual units are already doing much of this work. The ED already undertakes regular audits of practice, looking not only at many of the recommendations for the Choosing Wisely lists, but many more.

Our physicians have been looking at various aspects of appropriate test ordering and have seen improvements in their practice and we have a working group focussing on the important issue of End-of Life Care decisions and seeing significant changes.

Our vision is that Choosing Wisely will bring all of those groups, those champions of quality- evidence-based care, under the same umbrella so we can recognise and celebrate success and then build on the strong culture the Austin already has.

Our Choosing Wisely Committee is deliberately multidisciplinary, with support from the Hospital Executive to oversee this progress. Heads of the ED, Cardiology, Surgery, Anaesthetics and Pathology are sitting around the table. We have radiology, general medicine, nursing, medical trainees and, the most exciting part, keen medical student representation with leadership from key student educators.

So, how are we getting runs on the board?

We have presented at Grand Rounds, Heads of Unit meetings, SMS meetings and will be continuing to engage as many clinicians we can across the hospital. We will be engaging with our local GPs and, of course, source consumer groups to involve our patients and local communities in information dissemination.

The Choosing Wisely materials will be used around the hospital to provide patients and families with the recommendations for patients and the 5 questions they should ask their treating clinicians. These questions were reviewed by our Consumer Advisory Committee, who endorsed the use and distribution of them across the Health Service.

Our medical students will be a force to be reckoned with. Some have already been tasked with projects to identify areas where they can research and present their recommendations for change at future forums. We also have a study up and running exploring the barriers to change in an Australian hospital setting, so hopefully we can enlighten ourselves and many others about some of the local and system issues which need to be overcome

And, we are getting feedback from many clinicians on investigations and treatments they have recognised across the organisation which may not be "value-adding" or lack evidence. Many of these are not on the College lists, but are obvious areas where we need to focus our efforts.

Lastly, we have started by looking at two investigations to audit and identify where we may need to improve our practice and, it is anticipated, support a change in practice. The use of coagulation studies in the hospital is one area where there may be significant over-ordering. This is on the Australasian College for Emergency Medicine list. The other, the use of plain X-ray abdominal imaging, has been a pet bug-bear of mine for some time and, unsurprisingly, I found that I am not alone. So we will be looking at that also. Choosing Wisely has inspired us to look for our own lists.

So, at Austin Health, our Choosing Wisely journey has just begun. The wheels are starting to turn and the passengers are all getting on board. We have realised that this is a long journey and will take multiple drivers to see it through. But we also know we need to balance long-term change with the need to get early runs on the board to engage and encourage a culture of Choosing Wisely across the whole organisation.

It will be a challenge, but one worth doing.

We hope that we will be able to report back on some of our progresses over the coming months... and years.





"At Austin Health, we made the conscious decision to become a "Choosing Wisely **Champion Hospital",** a term we coined ourselves."

Simon Judkins

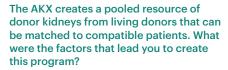
Medicine (ACEM), as one of the

Australia and New Zealand. Simon is with Clinical leaders to see the Choosing Wisely ethos embedded in



In Conversation

In Conversation provides a glimpse into the life of a healthcare professional with a passion for their field of medicine. In this issue we talk to *Professor Paolo Ferrari* who established the Australian Paired Kidney Exchange (AKX) Program in 2009. To date, the program has saved over 150 lives.



There were two simple factors here. Firstly, as a kidney specialist I was aware that if you have kidney failure and you need a kidney transplant, receiving a kidney from a live donor with little or no waiting time is better than waiting for a deceased donor organ and you'll enjoy longer survival because generally you'll get a better quality organ.

Secondly, about half of the live donors that are discarded are deemed unsuitable to their loved one because their blood group or tissue type doesn't match. In the past we would thank these donors for their good intention, let them go and ask the recipient to join the waiting list. Because you can imagine that this happens for many pairs around the country, why not pool those incompatible pairs? I could see the value in a kidney paired exchange that helps ensure transplant recipients get the organ that is the best match for them.

In what instance would a person opt to sign up for the AKX program?

Any patient with kidney failure, even if they have not yet started dialysis, can sign up to this program if they have a healthy and willing donor who is not compatible with them. There are also healthy people who want to give one of their kidneys to a person in need, but don't personally know anyone. These altruistic donors are an incredible asset to this program, because they will start a chain of domino transplants that otherwise could not occur, and therefore one donor can help many patients get a life-saving kidney transplant.

What difference have you seen the AKX make in an individual's life?

I have received many amazing testimonies both from pairs who I had the pleasure to

meet and care for and some whom I never met. For donors they feel they have helped two people to get a healthy kidney, their loved one and the one to whom they donated their own kidney and this makes them feel more special. For recipients, a new kidney changes their life and the lives of their loved ones and there is the added benefit with patients in the AKX program of relief from the emotional burden of being told that a loved one is not a compatible donor.

There are recipients who have been on dialysis and the deceased donor waitlist for a decade. Every story is different and it's an incentive to try and help even more incompatible live donor couples share this wonderful gift of life.

A kidney exchange can involve more than ten synchronised operations across the country. What are some of the challenges e.g., transport of organs, surgical complications, one participant pulling-out?

One donor pulling out at the 11th hour would disadvantage one recipient from another pair within the chain. To eliminate this risk we ensure that the donor surgical procedures occur simultaneously in a chain. The donor and recipient surgeries are carried out at the transplant centre where they have been evaluated and the donor kidneys are then transported to the matched recipients' transplant centres.

Coordinating multiple simultaneous surgical procedures in different hospitals is a complex undertaking that requires weeks of planning, from finding a date that is suitable for all the hospital personnel involved, supplying the specific container for organ transport, to booking couriers and flights. The challenge is anticipating all the possible problems and having an alternative plan for each single unforeseen situation that might occur.

The key ingredient to success is a dedicated coordinator with unsurpassed organisational skills and a good nature to be able to negotiate with all parties involved for the



best possible outcome. I have had the good fortune to work for several years with Claudia Woodroffe, as the national coordinator of the kidney swap program, and while we have had a handful of hair-raising adventures, in the end, it has all worked out every time.

Kidney disease is common in Australia yet the rate of organ donation is low. Where are the perceived barriers and what would help more Australians become organ donors?

The rate of deceased organ donors in Australia is certainly lower than in some other countries but it's rising steadily. Unfortunately, in Australia only 60 percent of families give consent for organ and tissue donation to proceed. The downside of the success in deceased organ donation is that we are seeing a decline in live donation. This is not the case in other countries that share similarities to Australia.

For example, The Netherlands, with a population of 16.8 million, has seen a 30 percent increase in live kidney donations (from 413 to 534) between 2008 and 2014, while in Australia we have seen a 25 percent decline (from 354 to 267) over the same period. This is a worrying trend and we ought to do something about it.

What inspires and motivates you to continue with your work?

There are many factors that inspire me to continue finding new solutions to old and new problems. At the end of a busy day, to know that I have helped to make a difference in someone's life is enormously satisfying.

The feedback from colleagues – the doctors, the surgeons the nurses that have worked in synchrony together to make the impossible possible – is equally motivating. Interacting with our junior doctors and trainees as the future innovators of medicine in our country is another important stimulus. And very importantly, my highly supportive and understanding family really helps me to find the inspiration I need to continue with my work.

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Remaining time displayed in hours:minutes



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- This course has been approved by the Health Departments in NSW, VIC, TAS, SA and ACT*

*Successful completion of this course is one of the requirements necessary for RNs to administer vaccinations without the direction of a medical officer (ACT legislation differs, please refer to course information for details)



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- Apply problem solving and clinical decision making skills in the management of deteriorating patient conditions
- Implement communication strategies that support interdisciplinary collaboration and patient-centred care
- Plan and evaluate patient management using clinical practice guidelines and current evidence

For all enquries phone Customer Service on 1800 265 534 or email customerservices@acn.edu.au



Clinell's patented cleaning system. Proven to be powerful and effective.



Clinell Sporicidal Wipes for high level disinfection and to target spores.

They have a proven six log kill and are proven to kill *C. difficile* in two minutes¹.

Proven to be more effective in reducing spore counts than chlorine releasing agents².



Clinell Universal Wipes clean and disinfect surfaces in one easy step for everyday use. Hospital grade disinfectant wipes with wide spectrum bactericidal activity, including MRSA and VRE.

Alcohol free patented formula, with a mix of biocides with different mechanisms of action to mitigate against bacterial resistance.



