THE AUSTRALIAN
HOSPITAL HEALTHCARE
BULLETIN SUMMER 2016

People, Processes, Performance

PROCUREMENT

Infection Control
Standards Update
P.28

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P.82

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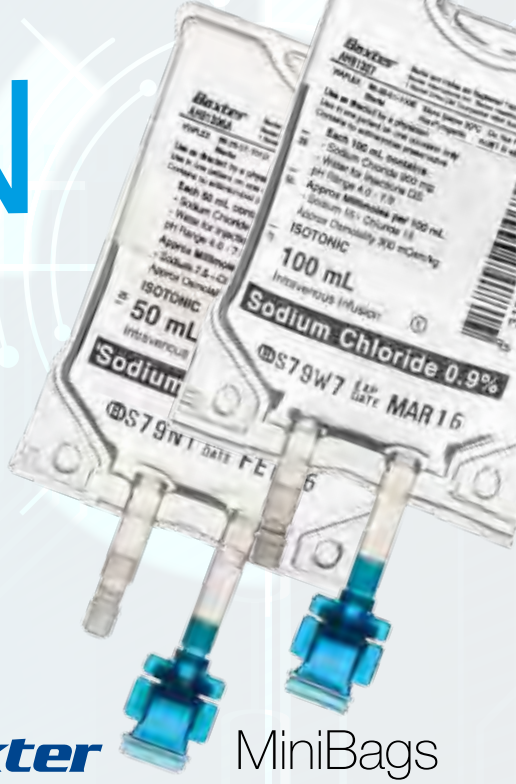

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(6.52 to 2.36 per 1000 CVC days)[10]

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(0.2% non-vented vs 2.8% vented phase)[10]

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2 OVERPOUCH

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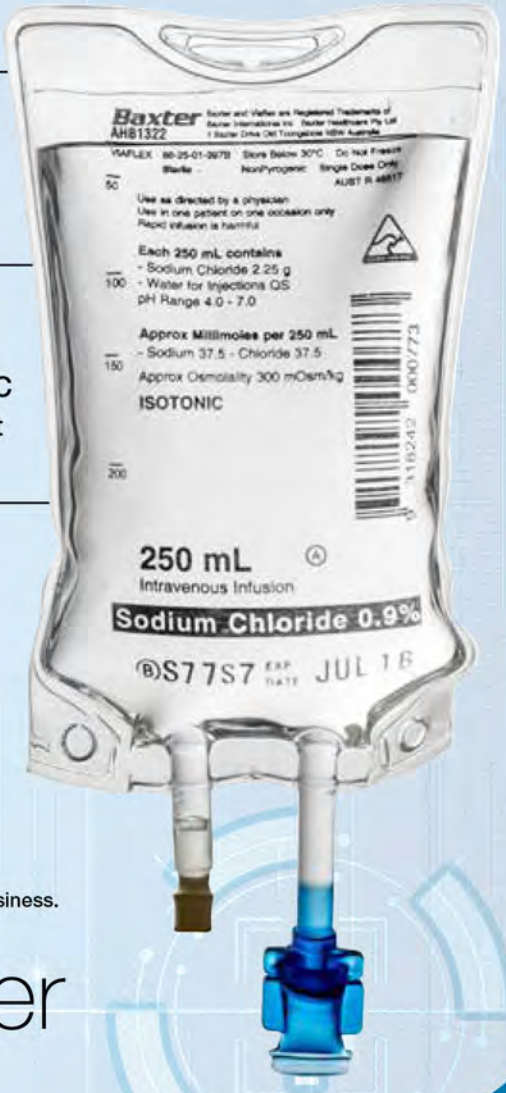

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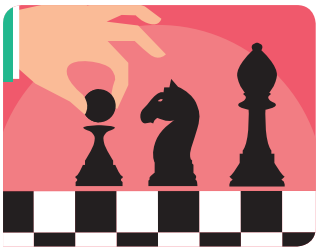

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Good Hospital Design

Welcome to the Summer 2016 issue of Australian Hospital and Healthcare Bulletin. This edition we are bringing together everything that goes into designing a good healthcare facility, from initial design, to pricing incentives, procurement strategy and the all-important human factor of professional development for staff.

Every organisation needs a strategy, and every employee needs to understand and embrace that strategy in order for a facility to flourish, writes communications consultant Mark Schenk, who guides executives through the process of planning and communicating an organisational strategy.

We also take a look at technology procedures integral to facility design, including patient flow tools and electronic medical record security guidelines developed by HISA.

The all-important procurement process has been thoroughly explored in a step-by-step guide and the MBS approval process for devices is explored in an interesting piece from Dr Eugene Salole.

Clinicians are very good at keeping on top of patients' physical and emotional needs to provide the care they need, but sometimes they can neglect their own care thanks to a busy and downright stressful job. This issue we remind those in the healthcare industry to take a look at their own diet to boost their mental health.

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Want to contribute

We welcome articles and research reports from health professionals across Australia for review for the quarterly print publication and our daily web page. If you have a story you think would be of interest, send an email to **ssmith@aprs.com.au**.

NOTE

In the Spring 2015 edition we ran the story *Nutrition Management in Bariatric Surgery and the Healthcare Facility* (pages 114-116). We should have acknowledged Covidien USA for the use of the diagram indicating the four most common bariatric procedures.

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The Rounds
Updates in Healthcare

TECHNOLOGY

Shrinking Health Nanotechnology Gains Momentum

Graphene, the nano-molecular material used in medical applications in drug delivery, cancer treatments and electrical diagnostic devices, has been developed smaller than ever (in 2014) and now cheaper than ever (2015), fuelling the consensus that it will be the next big 'wonder material'. With the development of one-atom-thick electrical generators by a team from Georgia Institute of Technology and Columbia Engineering in the US in 2014 (Nature) and the University of Glasgow researchers reporting a new production method which reduces the cost of manufacture from $115m^2 to $1m^2 it now opens up the ability to produce affordable healthcare devices such as synthetic skin and prosthetic limbs. *Source: Nature*

PATHOLOGY

Pigeon Pathologists

You've heard about dogs being able to sniff out cancer in their owners before the scans reveal anything, but did you know that pigeons can do it too? According to a *Plos One* study, when presented with x-rays and microscope slides of diseased breast tissue, the pigeons had the option of pecking one of two buttons indicating whether or not the image displayed healthy or cancerous tissue. They were rewarded with food and using selective reinforcement techniques, improved their success rate from 50% to up to 99% over a period of 15 days. *Source: Guardian News*

TECHNOLOGY

Surgery Training using Hollywood Effects

Boston Children's Hospital is using a Hollywood special effects company Fractured FX to train their clinicians in practices which require many hours of practice. The film-making company's considerable experience in making life-like organ models allows surgeons to train in cardiopulmonary bypass and how to do endoscopic third ventriculostomies (ETV) for treating hydrocephalus.

Watch the video at https://youtu.be/GWFxHdND2fA

AGED CARE

Dancing Robot for Aged Care Residents

A humanoid robot standing 57cm high and weighing just 7kg will be joining Perth aged care residents at Brightwater's Madeley facility for a 12 month trial. Zora is a socialisation robot specifically programmed to provide cognitively and physically stimulating activities activities such as the hosting of exercise and dance classes, book and news reading, joke telling and music classes and have one-on-one interactions with residents. Zora is operated with a tablet, and has inbuilt cameras, speakers and microphones and is equipped with speech recognition and voice synthesis in 19 languages. She was developed using French hardware and Belgian software from QMBT, with whom Brightwater Care Group has formed a research alliance, along with WA medical technology leader Surgical Realities.

MATERNITY

Epilepsy Pregnancy Register

The Australian Pregnancy Register aims to assess the risks to babies exposed to antiepileptic drugs during pregnancy and define safer treatment guidelines for women. Assessing women with epilepsy prior to conception, during pregnancy, and up to 12 months after birth, it is seeking eligible women to participate.
www.epilepsy.org.au

WOUND CARE

Smart Dressing

A smart dressing that glows green when bacteria comes into contact with its biofilm, indicating infection, has been developed in the UK.
From the study: "The static and dynamic models of wound biofilms ... were established on nanoporous polycarbonate membrane for 24, 48, and 72 h, and the dressing response to the biofilms on the prototype dressing evaluated."
Source: MedGadget

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WHEN February 16, 2016 – February 18, 2016 all-day
WHERE Melbourne Park Function centre, Melbourne VIC
CONTACT www.questevents.com.au/content/healthcare-procurement-2016

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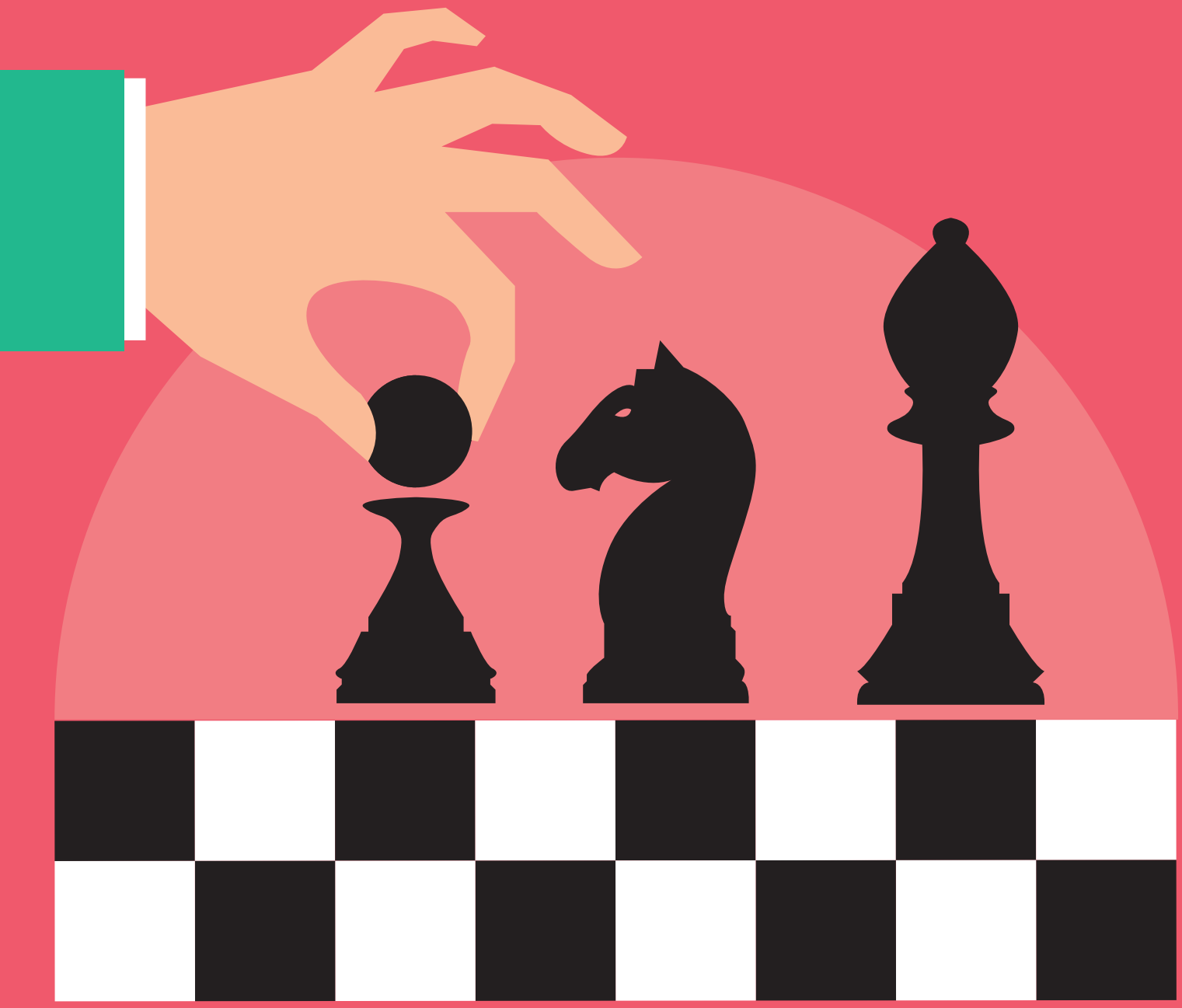
Making Strategy Stick with a Strategic Story

Is an organisational strategy really that good when the majority of employees don't know or understand it? Business strategist *Mark Schenk* discusses the importance of a clear, concise strategy that will unite an organisation - and how to develop one.



Steve Jobs bounces onto the stage and grabs the slide changer from his colleague with a friendly "Thanks Scott". He's looking thin and grey, illness having taken its toll, but his energy remains boundless. It's the 2011 Apple Worldwide Developers Conference and Steve is about to announce a change in strategy for his company. The 1000-plus crowd cheers as he steps into the spotlight and then falls silent, hanging on his next utterance..."About 10 years ago we had one of our most important insights, and that was the PC was going to become the digital hub for your digital life." With these words, Steve begins his strategic story.

Achieving strategic alignment has tremendous advantages - whether you are launching a new strategy or building a new healthcare facility. But, we are surprisingly bad at doing it. It's a dirty little secret shared by so many organisations: ask any employee about your strategy, including the executive team, and they'll lunge for a document that tells them. It's rarely embedded in their minds and, as a result, the espoused strategy does not influence day-to-day decision-making.

Research by Kaplan and Norton [2005] showed that a staggering 95% of people in organisations are unaware of or don't understand the strategy. A recent global study of 450 enterprises[2] found that 80% of those companies felt their people did not understand their strategies very well. Given the effort applied to strategy development, there is a massive disconnect here.

One of the possible solutions is potentially surprising - convert your strategy into a strategic story and teach leaders how to tell that story.

The beauty of this approach is its simplicity. A well-constructed story is easy to understand and remember and more importantly, it can be told and retold within the organisations. And, it happens without people even realising it - like you've planted a strategic Trojan Horse in their minds.

Here are four ideas that will help.

"If you can transform your strategy into a compelling story you will get better outcomes and more engagement from staff and stakeholders."

Start with 'why'

Most of the time we are busy. Communicating strategy takes a lot of effort and we tend to rush to the 'what' - the details. The trouble is, your staff won't understand the details until you have given them the big picture. They need to know the 'why' before the 'what' becomes relevant. Steve Jobs spoke for 35 minutes when introducing iCloud but he invested the first 4 minutes and 47 seconds explaining the big picture - the 'why'. Only then did he dive into any details about what iCloud did.

Use a simple narrative structure

No matter how complex your strategy, you can explain it using a simple narrative structure:

a) In the past...

b) Then something happened...

c) So now...(this is the essence of your strategy, your key strategic decisions)

d) In the future

In planning a new healthcare facility there will be many threads to your strategic story: facility design; technology; procurement; infection control; professional development; and possibly the transition to aged care. You can tell the whole story or the separate threads - once you have constructed your story it is almost infinitely flexible.

Chances are, your strategic story will be amazingly effective in engaging all forms of stakeholders: funders, regulators, designers, builders, managers, staff, patients and the community.

Keep it concrete

iCloud is a technically complex initiative, but in introducing it, Steve Jobs did not use a single technical term or abstract concept. He passed what we call 'the pub test'. It's how you would talk if you were explaining the strategy to a friend at the pub, at a barbeque or over dinner.

The next important step is to use concrete examples to illustrate key aspects of the strategy. When launching the new NAB strategy in early 2015, CEO Andrew Thorburn related a recent experience. He was teaching his son to drive and at one stage reminded him to indicate for three seconds before changing lanes. His son turned to him and said "But you don't do that Dad". He went on to make a point about leading by example. That story has spread like wildfire - people who were there remember it and those who weren't have heard it.

Keep it short

This is easier said than done. Blaise Pascal famously wrote 'I've written you a long letter because I didn't have time to write a short one'. If you work really hard you can get your strategy story down to 10 minutes. If you work exceptionally hard you can get it to 5 minutes.

If you can transform your strategy into a compelling story you will get better outcomes and more engagement from staff and stakeholders. You'll inspire people to get on board. Like Steve Jobs, you'll be leading, not just managing. And you will one of the few organisations where people really 'get' what you are trying to achieve.

References

[1] Robert S. Kaplan and David P. Norton, The Office of Strategy Management, Harvard Business Review, October 2005.

[2] Vanson Bourne (2011). The link between strategic alignment and staff productivity: A survey of decision- makers in enterprise organisations.

FEATURE STORY

MSF Doctor Jennifer Engel examines a TB patient at the MSF Green House TB clinic in Mathare, Kenya

Copyright: Tom Maruko/MSF

Médecins Sans Frontières Ending TB in Resource Poor Settings

Earlier this year *Dr Catherine Berry* returned from Uzbekistan where she spent more than a year working as a medical doctor with Médecins Sans Frontières (Doctors Without Borders) treating tuberculosis (TB) in the isolated, desert town of Nukus.

Catherine Berry
Infectious Diseases Advisor
Médecins Sans Frontières
(Doctors Without Borders)

Catherine Berry is an Interim Infectious Diseases Advisor for Médecins Sans Frontières and supports projects in Jordan, Haiti and Nigeria with a particular interest in antibiotic resistance. She recently returned from Uzbekistan where she was working as a research co-ordinator examining shortened regimens for multi-drug resistant tuberculosis. Catherine graduated from Newcastle University in 2004 and recently completed a Masters in Public Health and Tropical Medicine. She was awarded NSW Registrar of the year in 2014.

Uzbekistan is one of many countries in Central Asia with high levels of drug-resistant TB (DR-TB), a form of the disease that does not respond to the standard first-line drug regimen.

Like many of the countries Médecins Sans Frontières works in, access to diagnostics and good-quality care, remains limited and the vast majority of people with DR-TB remain undiagnosed and untreated.

Together with the Ministry of Health (MoH), Médecins Sans Frontières implemented a programme diagnosing and treating drug-sensitive TB, and over the years the project has evolved to include children and patients with drug-resistant (DR-TB) forms of the disease.

The idea is that introducing new approaches to diagnosis and treatment of TB – such as ambulatory care, rapid diagnostic tests and a comprehensive patient support programme including education, psychological support, transportation, food packages and financial aid – will help increase adherence to treatment and control the spread of the disease.

TB is a highly stigmatised disease in Uzbekistan, but also there are a lot of misunderstandings about how it is spread. TB is not spread by sharing a cup or shaking hands but this is not always clear. Even patients who are no longer infectious become socially isolated and often have difficulty accessing work and education if their TB becomes known. Patients often don't want to be seen near healthcare facilities and

An MSF doctor visits they home of a TB patient in Kyrgyzstan to persuade him to continue treatment.

Copyright: Pierre-Yves Bernard/MSF

MSF's Dr Catherine Berry looks at an x-ray of patient in the TB project in Nukus, Uzbekistan.

Copyright: Catherine Berry/MSF

prefer to have treatment at home. Even seeing the Médecins Sans Frontières car near their house can create gossip.

Often patients will seek care outside the formal TB system so as to keep their disease a secret. TB drugs can be obtained from almost any pharmacy and are often taken in adhoc way. These drugs may also be poor quality. Together this may mean patients have a very resistant form of the disease when they finally come to our attention.

Infection control in the field

The prevention of spread of TB requires an integrated approach and needs to incorporate healthcare facilities, communities and households. We want to protect healthcare workers, families, other patients but also the individual patient themselves. The cornerstone of this approach is rapidly identifying drug resistant cases using rapid diagnostic tests such as GeneXpert and getting them onto effective treatment. As soon as patients are on appropriate treatment they become non-infectious after just a few days.

In Nukus we offer patients community based treatment even for MDR-TB. This allows patients to get support from their community to complete the long treatment which can take up to two years. Hospitalisation is not without risk as patients can get cross-infection with a new and more resistant strain of TB. Family members are at very low risk once they start treatment.

A strong infection control program requires good administrative controls and commitment from high-level management. Otherwise it tends to get deprioritised especially in unstable settings like the ones Médecins Sans Frontières works in.

The best infection control measures are often the simplest. Sunlight and keeping clinics, homes and hospitals well ventilated is extremely important and natural ventilation is often far more efficient than the mechanical ventilation such as in the negative pressure rooms we are familiar with. Cohorting drug-resistant and drug-sensitive patients by delivering treatment in different rooms in DOT corners helps prevent cross-infection. We have assisted the MoH of Uzbekistan in making simple renovations to support these important control measures.

We try and minimise the time to getting patients on effective treatment. This starts with awareness and case finding. When patients are diagnosed, we try and raise awareness within the family about TB and how it is spread. We try and motivate contacts to come forward for treatment so that they too can get cured. We have also helped support the MoH to get rapid diagnostics like GeneXpert and also full drug susceptibility testing for all patients. This means patients who have MDR-TB can get the right treatment from the beginning and it means that the treatment is likely to work better for them.

We aren't always able to treat patients in the community and as TB is such a big problem there are dedicated TB doctors and hospitals. We try and promote good ventilation and cohorting in these facilities. Unfortunately, however the temperatures in Uzbekistan vary from -30 to +40 degrees Celsius which means that adequate ventilation is not always possible. We have installed →

TB facts in 2014

9 million
people affected by TB, and 1.5 million deaths

480,000
people with MDR-TB, yet only one in five treated

136,000
MDR-TB cases diagnosed

In parts of Eastern Europe and Central Asia, MDR-TB rates in re-treatment cases are reaching 75%

Cure rates for MDR-TB are 48% at best, dropping to 22% for XDR-TB

MSF Doctor Jennifer Engel examines XDR-TB patient, Elizabeth Wangeci, at the MSF Green House TB clinic in Mathare, Kenya

"Like many of the countries Médecins Sans Frontières works in, access to diagnostics and good-quality care, remains limited and the vast majority of people with DR-TB remain undiagnosed and untreated."

MSF and TB

Médecins Sans Frontières has been involved in tuberculosis (TB) care for 30 years, often working alongside national health authorities to treat patients in a wide variety of settings, including chronic conflict zones, urban slums, prisons, refugee camps and rural areas. Médecins Sans Frontières' first programmes to treat multidrug-resistant TB opened in 1999, and the organisation is now one of the largest NGO treatment providers for drug-resistant TB (DR-TB).

In 2014, Médecins Sans Frontières treated 21,500 patients for TB, of which 1,800 were for MDR-TB.

You can read more about Médecins Sans Frontières' work with TB here: **www.msfaccess.org/our-work/tuberculosis**

→ ultraviolet germicidal irradiation (UVGI) which is electric devices that help to minimise the amount of infective bacteria in the air. This is particularly important in high risk areas like diagnostic wards and in palliative care settings where patients are less likely to be on effective treatment.

We also advise healthcare workers, both our own and MoH, to protect themselves with well-fitting respirators (N95 masks). These are supplied by the Global Fund for TB, HIV and Malaria but we provide support with training of national health workers in correct fitting and usage.

Fighting stigma

A big part of fighting stigma is in curing our patients. Often if the first round of treatment doesn't work, they become seen as a "chronic case" - incurable and infectious and that further treatment is only for palliation. We try and change these attitudes so that patients can believe that they can get cured and have a normal life.

When patients and families understand the disease properly and that cure is possible, they are more likely to support their family member through the difficult treatment. The family unit in Uzbekistan is very powerful and patients need the support of their family and community to succeed. In embracing this, communities will be protecting themselves. We hope our presence in the region keeps the conversation open and promotes education and understanding.

When patients are diagnosed, we try and raise awareness within the family about TB and how it is spread. It is very

MSF's Dr Catherine Berry looks at an x-ray of patient in the TB project in Nukus, Uzbekistan.
Copyright: Catherine Berry/MSF

important to motivate contacts to come forward for treatment so that they too can get cured. We have also helped support the MoH to get rapid diagnostics like GeneXpert and also full drug susceptibility testing for all patients. This means patients who have MDR-TB can get the right treatment from the beginning and it means that the treatment is likely to work better for them.

When the drugs don't work

Almost one in four of all new cases of TB in Uzbekistan are multi-drug resistant. MDR-TB treatment is currently only partially effective and we only cure about 65% because the treatment is so hard to take. We have been treating MDR-TB since 2003 so many patients have had lots of treatment before. This means that early diagnosis of MDR-TB and Extremely Drug-Resistant TB (XDR-TB) is all the more important for selecting the right treatment upfront.

In contrast, drug-sensitive TB takes six months to cure and has a 95% success rate. The drugs are also much more tolerable. For MDR-TB and XDR-TB, treatment takes 20-24 months, involve a daily intramuscular injection for the first eight months and can send patients deaf. Other side-effects include nausea and vomiting, hepatitis, renal failure, thyroid disease and suicidal ideation.

Although we invest heavily in infection control in the region, we feel the most important strategy to stop the spread of MDR-TB is to find more effective, shorter and more tolerable treatments. There are now new dedicated TB drugs - bedaquiline and delaminid - available for the first time in 30 years with more to come. Médecins Sans Frontières is involved in operational research and clinical trials to try and find these new strategies but also to get these newer treatments to the patients who need it most.

Dr Jennifer Engel
MSF Doctor

MSF Doctor Jennifer Engel shares her experiences working in Treating TB in Mathare, Kenya:

"Our clinic is located in the Mathare slum, a poor district of the capital Nairobi. Here we deal with people who have no chance medical care outside MSF. Most of my patients are from neighbouring Somalia and often come here already diagnosed with MDR-TB to finally obtain the necessary treatment.

In Somalia there is no way to get drugs against this particularly difficult to treat form of TB due to the totally destroyed health system. But this means for my patients that they have to leave their home for the time of treatment. And the therapy lasts 20 months! For the first eight months the patients get a daily antibiotic injection. In addition, they need to take about 20 tablets a day. The drugs are often very expensive, although the treatment is free of charge for our patients.

The main difference is that in Mathare, compared to treatment in countries like Australia or Germany, is that we can only treat ambulatory. In the developed world an infectious TB patient always stays in the hospital till they are not infectious ("sputum conversion"). In Mathare we have to educate the patient so they know how to prevent the community and family from getting infected.

Like many countries MSF works in the stigma around TB in Mathare is high. We have patients who are too afraid to tell their family about their diagnosis.

The most important part of infection prevention is the early identification of patients with TB. That means to diagnose and start the treatment as early as possible. With the beginning of the treatment the bacteria load is low and the patient becomes less infectious. Other important measures are good ventilation, cough hygiene (covering your mouth while coughing), separation between infectious TB patients and other patients both inside and outside the hospital, and education of the patients and staff in the hospital."

Unintended hypothermia: Do you know the risks?

During surgery, general or regional anaesthesia causes a decrease in body temperature for most patients, regardless of age, gender and other factors. If not prevented or quickly addressed, this temperature drop can result in unintended hypothermia, defined as a core body temperature of less than 36.0°C, which increases the chances of surgical complications[1] and patient discomfort after surgery.

More than just hot air – the facts on forced-air warming

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Unintended hypothermia remains a common—but preventable—complication of surgery.[2] Compounding the frequency of unintended hypothermia is its potential effect on patient outcomes. Perioperative hypothermia is associated with an increased rate of negative outcomes – including an increased rate of wound infections1, increased length of hospital stay[1] and higher mortality rates.[3]

To combat this problem, hospitals and surgical centres often use perioperative warming technology to warm the patient, assisting in the maintenance of normal body temperature throughout the surgical journey.

More than just hot air – the facts on forced-air warming

Forced-air warming is the leading method of perioperative warming utilised by hospitals and surgical centres in Australia and New Zealand due to its low cost, effectiveness and safety. This surgical warming method is the most frequently studied, resulting in a great deal of clinical evidence demonstrating the benefits of forced-air warming. In fact multiple studies have shown that maintaining normal body temperature - through the use of forced-air warming- reduces the risk of surgical site infections.[4-6]

Forced-air warming has been shown to be the most effective when used throughout the entire perioperative process.

Despite the large number of people who are treated with forced-air warming products each day, claims from one competitor allege that the 3M™ Bair Hugger™ warming system may harm rather than help patients. Jay Issa, Global Business Director of 3M's Patient Warming business, recently provided insight on these unsubstantiated claims and 3M's commitment to patient safety.

Q. Is the 3M Bair Hugger patient warming system safe to use in orthopaedic and other procedures?

J. Issa. Absolutely. In the US the FDA cleared 3M's Bair Hugger forced-air warming products to treat and prevent hypothermia for patients before, during and after surgical procedures more than 25 years ago. 3M has built its reputation as a credible, science based company by making products customers can rely upon. 3M Health Care earns the trust of health care providers everyday by making products for patients that are safe, effective and improve the quality of care. 3M would not continue to sell a product if there was reason to believe it harmed patients or providers.

Q. Does the Bair Hugger system increase the risk of surgical site infections, particularly in patients undergoing orthopaedic joint replacements?

J. Issa. No, these claims are entirely false and without scientific merit. Neither 3M nor reputable third-parties have been able to replicate a competitor's claims and independent, randomised control trial studies have shown that perioperative temperature management with forced-air warming actually decreases risk of surgical site infections.1 In fact, when tested in actual surgical conditions, research shows that forced-air warming actually does not increase the bacterial count at the surgical site and may decrease it.[4-6]

At 3M, we are confident in the scientific evidence that supports forced-air warming to maintain normothermia in surgical patients. The benefits—to patients, clinicians and facilities —of temperature management are clear.


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Don't put yourself at risk

Wearing a face mask that does not have a fluid-resistance rating may leave you inadequately protected whilst performing procedures that generate splashes or sprays of blood, body fluids, secretions or excretions.

Did you know that the concentration of viruses circulated in the blood can reach up to 10,000 viruses/ml for HIV, 1 million/ml for Hepatitis C, and up to 10 trillion/ml for Hepatitis B?[1] What is particularly worrisome is that a clinical trial confirms that these potentially contaminated blood drops strike the head and neck of operating theatre staff more than 25% of the time during surgery.[2]

Further, a clinical study confirms that more than 90% of the time, surgeons, who are focused on their patients, are unaware that they have been struck by contaminated fluids.[3] This fact alone underscores the importance of surgeons having access to the right mask to protect themselves.

How can you be sure you're getting the protection you need?

To make it easier to select the right level of mask protection, the American Society for Testing and Materials (ASTM) International and the U.S Food and Drug Administration (FDA) developed mask labelling based on test performance criteria. Within the ASTM International Standard, there are 3 categories of protection, with Level 1 representing the lowest level of protection and Level 3 representing the highest level. For fluid resistance, masks are required to withstand a pressure of 80 mmHg in order to meet the Level 1 criteria, 120 mmHg to meet the Level 2 criteria and 160 mmHg to achieve a Level 3 rating. The Australian Standard (AS 4381:2002) only recommends fluid resistance at 120mmHg.

The ASTM International Standard requires that face mask packaging has a graphic display that clearly states the mask's performance level. **Masks that do not have this graphic display cannot be assumed to be fluid-resistant.**

ASTM 2100-11

Medical Face Mask Material Requirements by Performance Level

CHARACTERISTICS	TEST	LEVEL 1 Low	LEVEL 2 Medium	LEVEL 3 High
Bacterial Filtration Efficiency % *(BFE)*	ASTM F2101	≥ 95	≥98	≥98
Differential Pressure, *mm H_2O/cm^2*	4.4.1.2 of MIL-M-36954C	<4.0	<5.0	<5.0
Particule Filtration Efficiency % (PFE)	ASTM F2299	≥95	≥98	≥98
Resistance to penetration by synthetic blood, *minimum pressure in mmHg for pass result*	ASTM F1862	80	120	160
Flame Spread	16 CFR Part 1610	Class 1	Class 1	Class 1

Put safety first

Halyard Health (formerly Kimberly-Clark Health Care) makes it easy for you to put safety first. Halyard has a full range of fluid-resistant procedure and surgical masks that meet and in some cases exceed the ASTM International Standard. All Halyard's mask packaging are clearly labelled with the level of protection (Level 1, 2 or 3) according to the ASTM International Standard. This simplifies the process of mask selection and will help you make sure you are appropriately protected for the fluid risk that may be present.

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HALYARD

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IS YOUR MASK ONLY DOING HALF THE JOB?

Studies show fluid strikes the face area of operating theatre staff on average between 45 and 51% of the time.[1] And the truth is, over 70% of masks aren't rated for fluid resistance.[2]

Now you can get the comfort you've always wanted and the protection you need with HALYARD* FLUIDSHIELD* Face Masks. All FLUIDSHIELD* Face Masks are fluid-resistant and meet both the Australian Standard and the ASTM International Standard.

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Tennant, Making a Difference for Hospital Cleaning

Patients, staff and visitors expect healthcare facilities to be clean and safe, ensuring their health and safety is paramount. Reducing cleaning-related hazards including slippery floors, poor indoor air quality, and the handling and mixing of chemicals, can help you minimise accidents and meet your safety goals.

Tennant's new T300 addresses your key cleaning challenges and delivers outstanding scrubbing results to enhance a facility's image, whilst improving health and safety, and minimising your cleaning costs. One of Tennant's most versatile machines to date, the T300 Scrubber is quickly becoming a must have in hospitals around Australia.

Tennant Distributor, Whitehouse Cleaning Supplies, was proud to be handing over the keys to a new Tennant T300 Scrubber to St Vincent's Private Hospital General Manager Cheryle Royle in Brisbane recently. This is the first T300 machine sold in Australia and Whitehouse was pleased that St Vincent's Hospital, which is known as a leading healthcare provider, chose Tennant to meet their cleaning needs.

Nathan White, owner of Whitehouse Cleaning Supplies, said that in the 17 years that they have been supplying Tennant equipment, the machines and technology keep improving and the new T300 is a giant leap ahead in technology. Features such as the Insta-Click™ magnetic head and the next generation of detergent-free technology ec-H2O NanoClean™ has the potential to make the hospital cleaning staff's job easier, safer and more efficient.

The T300 has the ability to improve the hospital environment, create a safer workplace and offer more efficient training. "Tennant is continually innovating to improve our customer's cleaning operations with high performance sustainable technologies. It's our commitment to drive innovation in both cleaning technology and cleaning process to help our customers clean more places, clean better, and clean for less," said Dave Huml, Tennant Company Senior Vice President of Marketing.

Nathan White from Whitehouse Cleaning Supplies demonstrating the new T300 with the optional LCD Pro-Panel™ screen

Innovative ec-H2O NanoClean™ detergent-free technology available on the T300, is also proving a popular choice within hospital environments. ec-H2O NanoClean™ electrically converts water into an innovative cleaning solution created by an onboard e-cell that generates nanobubbles. These nanobubbles then promote the cleaning capability of the solution. Fiona Stanley Hospital in Western Australia uses ec-H2O™ in public areas throughout their hospital reducing the amount of floor detergents used in the hospital. This practice also helps to eliminate the amount of detergent residue to improve floor traction and reduces the risk of slips and falls. Tennant Distributor, PowerVac Cleaning Equipment and Service, has provided Fiona Stanley Hospital with a range of Tennant equipment to clean carpeted offices through to patient wards.

From floor cleaners that are more efficient to cleaning technologies that use fewer chemicals, Tennant's product portfolio reflects a deep understanding of the cleaning challenges facing hospitals and healthcare facilities. The use of Tennant equipment can help to keep your facility cleaner and healthier so you can give patients and visitors a better experience.

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For more information on how Tennant can help make a difference in your hospital visit our website or call us to request a free consultation on on **1300 TENNANT**, visit **www.tennantco.com/healthcaresolutions** or email **demo@tennantco.com**

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

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

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

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

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

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

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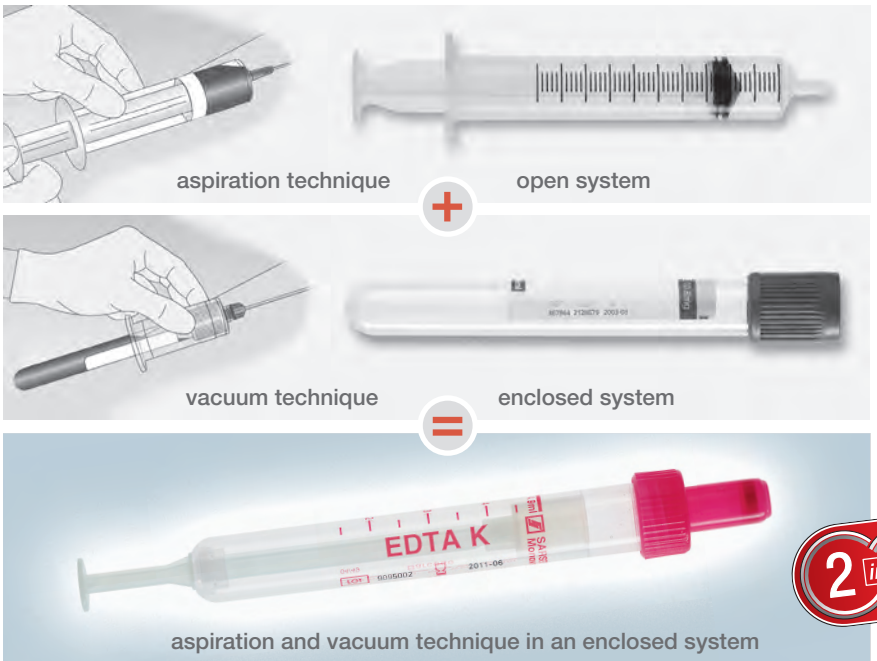

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Engineered for protection

FEATURE STORY

Version 2 of the NSQHS Standards

The Australian Commission on Safety and Quality in Health Care (the Commission) started a review of the National Safety and Quality Health Service (NSQHS) Standards in late 2014, to determine if the NSQHS Standards had achieved their aim of protecting patients from harm and improving quality of care. The review also seeks to address issues that have been recognised during implementation of the NSQHS Standards, including duplication.

Version 2 of the NSQHS Standards is expected to be released in 2016 and will be used for accreditation from 2017/18.

To review the NSQHS Standards, the following set of principles was developed. Version 2 of the NSQHS Standards will:

- aim to protect the public from harm and improve the quality of health service;
- be applicable across all healthcare settings;
- focus on areas of known risk to patients, including consideration of high-risk preventable complications;
- ensure implementation is on systems to prevent harm;
- be evidence-based and rigorous;
- strive to reduce the number of actions and standards;
- reduce duplication wherever possible.

Version 2 of the NSQHS Standards will also address issues not previously in the Standards that have been recognised as causing harm to consumers, including:

Aboriginal and Torres Strait Islander health

There is considerable evidence of the poor health outcomes for Aboriginal and Torres Strait Islander people. There are also specific and identifiable safety and quality risks for Indigenous people. Closing the gap between Indigenous and non-Indigenous people is a national priority, and version 2 of the NSQHS Standards includes six specific actions to support better safety and quality for this group of people.

Mental health and cognitive impairment

People with lived experience of mental health or cognitive impairment have poorer overall health outcomes and are at greater risk when receiving care. Version 2 of the NSQHS Standards includes actions that specifically address the risks associated with mental health or cognitive impairment when receiving care.

End of life care

Safe and high quality end of life care can help reduce the suffering of the consumer receiving care, and assist in the grieving process for their family members. The use of advance care plans and clear communication between consumers and clinicians assists in consumers at end of life receiving treatment aligned with their values, needs and wishes.

Health literacy

Low levels of individual health literacy contribute to poorer health outcomes, increased risk of an adverse event and higher healthcare costs. Health services can address health literacy issues by providing information in easily understood formats and by using decision aids.

Leadership

The importance of leaders in setting the safety and quality culture of an organisation is well known. New content on leadership and governance that includes explicit statements about the role of leaders and others in safety and quality in health care have been added to version 2 of the NSQHS Standards.

Nutrition and hydration

There is clear evidence that nutrition and hydration are important in preventing safety and quality problems in health care. Malnutrition is associated with a twofold increase in the risk of pressure injuries and hospital-acquired infections, and increased mortality. The estimated prevalence of malnutrition in adults receiving care in acute and sub-acute settings is 30%.,

Comprehensive care

Safety and quality gaps are frequently reported as failures to provide adequate care for specific conditions or in specific situations or settings, whereas they may occur because of common causative factors. Integrated screening, assessment, risk identification and care planning incorporating the consumer's preferences can address these factors.

Clinical communication

In version 1 of the NSQHS Standards, NSQHS Standard 6: Clinical handover was often interpreted narrowly as only referring to shift-to-shift handover. However, it is known that to ensure safe and high-quality health care effective communication is critical at all points where information is transferred, and this is reflected in version 2 of the NSQHS Standards.

Recognising and responding to acute deterioration

Version 2 of the NSQHS Standards includes deterioration in mental and cognitive state alongside deterioration in physical state. The scope has also expanded beyond acute care settings to all healthcare settings, with modifications depending on the scope of services provided in each setting.

Organ and tissue donation

Around 1600 people are on Australian organ transplant waiting lists at any one time. One organ and tissue donor can transform the lives of 10 or more people through transplantation. Version 2 includes support for organ and tissue donation as part of end-of-life care.

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Further reading

For more information on the NSQHS Standards, visit **http://bit.ly/1Tb5J0g**

NSQHS STANDARDS
A better way to care
AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

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.

A 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 hands-free 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)

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RCR International, brand owners of Pro-Val medical grade gloves, providing the healthcare industry with premium quality protection. Increasing concern surrounding the prevention of allergies and infectious disease means healthcare workers demand only high quality products. With a comprehensive range of medical gloves, all listed on the Register of Therapeutic Goods, and meeting International Standards for Medical Examination gloves, you can be confident that Pro-Val have a glove to suit your needs.

Pro-Val specialise in a number of latex free medical gloves. Our nitrile glove range include the NiteSafe, a super strong and stretchy glove, maintaining great dexterity and feel, with the added benefit of providing you with an excellent barrier where there is greater risk of puncture. The SuperSoft and WhiteNite are the most cost effective of our nitrile medical gloves. They are incredibly comfortable, soft and ultra-thin, providing you with increased touch and feel.

The Chemoprene, a polychloroprene (neoprene) powder free glove, performs and maintains excellent resistance to cytotoxic chemotherapy drugs and many chemicals. It's incredibly flexible, comfortable and strong, with better elongation and tensile strength than nitrile.

Stretch Vinyl, another latex alternative, is an innovative, new generation ultra soft resin, vinyl powder free glove. Stronger and stretchier than standard vinyl gloves, they look and fit like latex. Available in clear or blue, and do not contain DOP or DEHP phthalates.

Pro-Val medical gloves also include a range of latex gloves, including the premium Securitex HR, a high risk examination glove, featuring an extra long cuff and three times thicker than standard latex gloves, making them ideal for the user who requires superior protection.

Also available from Pro-Val are soft, breathable, lightweight hygienic disposable bed sheets and pillowcases, white in colour simplifying cleanliness verification before use.

Whether you work in a hospital, nursing home, or any other healthcare environment, it is imperative to wear quality medical gloves, to ensure both you and the patient are protected from the risk of contamination. Pro-Val medical gloves can offer you the protection and comfort you need.

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CareFusion Product Code	Description	Packaging	Shelf Life	Temperature Control Recommendations[3]
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600715	10.5 mL Tint	25/Box, 100/Case UOM Case	24 months	
600815	26 mL Tint	25/Case, UOM Case	24 months	

Please contact your local IP & PosiFlush representative for more information.

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* Central Venous Catheter.

** When compared to 10% povidone-iodine.

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CareFusion has joined BD

NSW-first Hospital in the Home service at Prince of Wales Hospital celebrates 20 years

Prince of Wales Hospital is celebrating 20 years since its establishment of the first Hospital in the Home service in NSW.

Hospital in the Home (HITH), an innovative approach to patient-centred care, allows suitable consenting patients to be treated in their home, as an alternative to inpatient (in hospital) care.

Established in October 1995 at Prince of Wales Hospital (POWH), the HITH service at POWH was the first in NSW and has since played a key role in founding the Hospital in the Home Society of Australasia, which POWH led for six years.

Associate Professor Gideon Caplan, Director, Post-Acute Care Services, Prince of Wales Hospital, said HITH provides clinical care which significantly improves health outcomes for patients, as well as reducing the length of stay in hospital, or in some instances, avoids hospital admission altogether.

"A range of clinical conditions can be effectively and safely managed without a person needing to stay in hospital such as cellulitis, pneumonia, deep vein thrombosis, chronic obstructive pulmonary disease (COPD) and urinary tract infections," Associate Professor Caplan said.

"Some of the benefits for patients who are treated through the HITH service includes reduction in mortality and hospital-acquired infections, having the ability to remain in the comfort of their own home, eating their own food and sleeping in their own bed.

"Providing this option for patients who are suitable saves them an unnecessary stay in hospital and makes sure we have beds available for patients who need to be in hospital for their care."

Since 1995, POWH has assisted several similar care at home services nationally and published 35 publications on HITH.

"POWH also played an important role in introducing HITH into other NSW hospitals by holding open days and hosting visitors through the National Hospitals Demonstration Program, during which POWH trainees mentored 17 other hospitals around Australia," Associate Professor Caplan said.

As a leader in this area of healthcare, POWH has collected important information around this patient centred approach, by running two randomised controlled trials and a meta-analysis, which showed HITH improves health outcomes and:

- decreases geriatric complications, including confusion/delirium, bowel and bladder problems
- decreases wound infections by 1/3
- decreases readmissions by 25%

The analysis also found that HITH increases both patient and carer satisfaction and decreases overall costs on the health system.

"Since being established, HITH at POWH has treated over 10,000 patients, currently averaging around 1000 per year," Associate Professor Caplan said.

(LEFT) Associate Professor Gideon Caplan, Director, Post-Acute Care Service, Prince of Wales Hospital who was instrumental in the establishment of the HITH service at POWH and Diva Kuzmich, Clinical Nurse Consultant, Post-Acute Care Services, Prince of Wales Hospital. (RIGHT) The team at Prince of Wales Hosptial's Post Acute Care Service.

Save Lives

Safe, economical & effective infection control with an Australian company

Hundreds 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)

Eucalip

»

Visit **www.eucalipgroup.com.au** for more information. Or call **1300 880 739** or email **eucalipgroup@bigpond.com.au**

Australasia's Premier Infectious Diseases Conference

Come enjoy autumn in Launceston for the Annual Australasian Society for Infectious Diseases (ASID) Annual Scientific Meeting (ASM) from 20 – 23 April 2016.

The ASID ASM is all about connecting and exchanging: connecting clinicians, microbiologists and other health professionals with a common interest in infectious diseases and providing a friendly forum for the exchange of scientific advances in the prevention, diagnosis and management of clinical infectious diseases.

And what better place to do this than in Launceston, the beautiful boutique riverside city at the head of the Tamar Valley that boasts magnificent natural attractions including the spectacular Cataract Gorge Reserve and beautiful parks and gardens. Immerse yourself in the city's rich cultural heritage, and thriving food and wine scene set amongst the backdrop of vibrant Georgian streetscapes.

A Compelling Program

The 2016 Conference program will focus on providing an innovative and comprehensive review of the latest developments in the rapidly expanding fields of antimicrobial stewardship, infection control, viral hepatitis and more.

Renowned International and National Speakers

Three international speakers will accompany the national line up of experts, to present recent and relevant global and local scientific research through a series of keynote lectures, proffered papers, symposia and educational workshops.

The MacFarlane Burnet Speaker 2016
Professor Alison Holmes, UK

Alison Holmes is a Professor of Infectious Diseases and Director of Infection Prevention and Control (DIPC) for Imperial College Healthcare NHS Trust in the UK. She is also Director of the NIHR Health Protection Research Unit (HPRU) in Healthcare Associated Infection and Antimicrobial Resistance and Co-Director of the UKCRC funded National Centre for Infection Prevention and Management.

International Keynote Speakers 2016
Professor David Kimberlin, USA

Prof Kimberlin is Co-Director of the Division of Paediatric Infectious Diseases at the University of Alabama, Birmingham, USA. He is Principal Investigator of the Collaborative Antiviral Study Group (CASG), and on the CASG's four newly awarded contracts of $19.2M to evaluate novel therapeutic and diagnostic opportunities for management of neonatal herpes simplex virus (HSV) disease and congenital cytomegalovirus (CMV) infection.

Professor Gavin Screaton, UK
Prof Screaton is the Chair of Medicine at Imperial College.

His research has covered a variety of topics from control of RNA processing and apoptosis to immunology. The current interests of his laboratory revolve around the immunology of infectious diseases with a special interest in dengue haemorrhagic fever, with active research collaborations in South-East Asia.

Plenary Speaker 2016
Professor Sharon Lewin, AUS

Prof Lewin is the inaugural director of the Peter Doherty Institute for Infection and Immunity, a consultant ID physician at the Alfred Hospital in Melbourne, and an NHMRC Practitioner Fellow.

She leads a large multi-disciplinary research team that focuses on understanding why HIV persists on treatment and developing clinical trials aimed at ultimately finding a cure for HIV infection. Her other research and clinical interests include immune reconstitution and immune activation post antiretroviral therapy and HIV-hepatitis B virus co-infection.

Facilitation of Special Interest Groups

The conference format provides local special interest groups with the opportunity to come together during the meeting. These include the

- Paediatric Special Interest Group (ANZPID)
- Healthcare Infection Control Special Interest Group (HICSIG)
- Mycology Special Interest Group (ANZMIG)
- Viral Hepatitis Special Interest Group (VHSIG)

Activities and Fun

Launceston is a charming and friendly city to visit and provides a wonderful opportunity for you and colleagues to explore the many great attractions that Tasmania has to offer at the same time as expanding professional skills and networks.

ASID ANNUAL SCIENTIFIC MEETING
Launceston, 20 - 23 April 2016

» Register for the conference now. Visit **www.asid.net.au/meetings/annual-scientific-meeting-2016**

ASID ANNUAL SCIENTIFIC MEETING

Launceston, 20 - 23 April 2016

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SOCIAL FUNCTIONS

Welcome Reception
Josef Chromy Wines
Wednesday 20 April 2016

Gala Dinner
The Albert Hall
Friday 22 April 2016

DEADLINES

Abstract Submission
Friday 29 January 2016

Early bird Registration
Friday 29 January 2016

Accommodation Booking
Friday 19 February 2016

Standard Registration
Tuesday 29 March 2016

CONTACT

For further details contact the meeting secretariat

Tel +61 2 8204 0770
Email meeting@asid.net.au
Web www.asid.net.au/meetings/2016-asm-2

KEYNOTE SPEAKERS

Professor David Kimberlin
Co-Director of the Division of Pediatric Infectious Diseases at the University of Alabama, Birmingham, USA

Professor Gavin Screaton
Dean of the Faculty of Medicine, Imperial College, London, UK

Professor Sharon Lewin
Director of the Peter Doherty Institute for Infection and Immunity, AUS

MACFARLANE BURNET SPEAKER 2016

Professor Alison Holmes
Professor of Infectious Diseases and Director of Infection Prevention and Control (DIPC), London Imperial College Healthcare NHS Trust, UK

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Hotel Grand Chancellor Launceston
Enjoy contemporary style and a historic location, just steps from the CBD and Brisbane Street Mall.

Young People in Aged Care: An Australian Crisis

With the recent Parliamentary Inquiry into young people living in aged care, *Samantha Kennerley*, Youngcare Chief Executive Officer presents her thoughts on the housing crisis and complex funding arrangements between state and federal government.

They say necessity is the mother of invention, and when you see the needs of your loved one so poorly met as they slip through the safely nets that were designed to help, your drive to remedy the situation can push you to accomplish amazing things.

At the age of only 26, Queensland resident Shevaune Conry was diagnosed with Multiple Sclerosis (MS). Her husband David, who provided support and care for her, was astounded to find that once her MS has progressed to a point in which she needed 24-hour care and could no longer be cared for safely at home, there was nowhere appropriate for her to go. Shevaune was just 33. David and Shevaune realised the harsh and unfair reality, that the only option for young people with high care needs, is often aged care. It was then that David rallied his three mates – Mathew Lawson, Nick Bonifant and Simon Lockyer – to establish Youngcare, driven by the goal of helping all young Australians with high care needs to live life with greater choice, independence and dignity.

Youngcare is one of Australia's largest national disability charities that receives no recurrent government funding. Our mission is to keep young people out of aged care, by helping to avoid new admissions as well as assisting people to transition back into the community. Youngcare seeks to achieve this through the development of purpose-built accommodation, distributing grants, undertaking Australian-first research and providing information and referral phone service that helps young people and their families navigate the health system. Youngcare is also at the forefront of advocating for change in the ways disability services are delivered throughout Australia, and are actively involved in informing national policy in this arena. →

Samantha Kennerley
Youngcare CEO

Samantha was appointed Youngcare CEO in April 2014. Her passion for social justice, together with personal experience supporting a close family member following a traumatic brain injury, drives Sam's belief that all young Aussies deserve young lives. Sam has held Director positions both in Australia and the UK, with extensive experience in the corporate deals arena.

FEATURE STORY

Youngcare's ten years of dedication to helping solving this crisis has produced a collection of data and information that can elaborate on efficient ways to divert premature entry into aged care. With three accommodation solutions completed, apartments and a share house which is home to 28 residents; as well as 17 rounds of funding in five states and territories, over $2.7 million distributed in grants; and over 10,000 calls to the Youngcare Connect phone service; a wealth of experience in the field of housing people with high care needs has amassed. Youngcare's partnership with Griffith University has also produced an evidence-based model of care and best practice in building accommodation facilities that cater to the needs of people with profound and severe disabilities.

What has characterised Youngcare's success in the sector is the refusal to point the finger at any one government department at either state or federal level for being responsible for more than 7,000 young people still living in aged care, instead acknowledging the many contributing factors of this complex issue.

Youngcare's recent submission to the Senate Inquiry into young people in aged care recommended immediate and long term changes based on experiences helping people avoid and leave aged care, nine of which aligned with the recommendations put forward by the Senate Report. The problem of young people residing in aged care requires a whole of community approach from both government and non-government organisations.

It is a problem that is felt throughout Australia, but disproportionally by young people with high care needs and their carers who represent some of the most marginalised members of our society.

A close analysis of the reasons why someone enters aged care can provide surprisingly logical antidotes. Youngcare highlights three distinct situations that are generally the origin of a young person entering aged care, and recommends ways in which these can be avoided:

1. Sudden decline in condition or traumatic accident
2. Post hospital discharge
3. Carer burnout

A sudden decline in a person's condition or suffering a traumatic accident is possibly the most common reason younger people will enter aged care. The contributing factors behind this are often two-fold: the design of the house in which they reside is no longer able to accommodate their needs; and because their personal care needs increase and outweigh the paid or unpaid care available. For people suffering a traumatic injury, no existing care is currently available, and for those with young families, this is especially difficult for their spouse to absorb the extra care. This situation often evolves into a crisis where families are left without the resources or means to continue to live as a family unit, and aged care is reluctantly sought as a last resort.

One key area of concern is that most people experiencing this have acquired their disability as an adult, which means their knowledge of the disability industry often lacks understanding of where, when and how to get the help they need. Put simply, *you don't know what you don't know*, and in a crisis situation, when the only answer to your call for help is aged care, it can be difficult to spot alternatives. This scenario is one Youngcare encounters often, and is regularly reported in grant applications to Youngcare for funding. Based on known experiences, Youngcare has made recommendations on how to lower the risks of entry into aged care and boost the resources available.

The key recommendations Youngcare advocates in this situation are;

1. **Immediate access to funding for home modifications.** While all states and territories have their own subsidised funding scheme, all areas have lengthy and drawn out waiting times to access any available funding.
2. **Subsidised or fully funded and immediate access to occupational therapists.** Waiting times for allied health professionals to assess and recommend home modifications exacerbate the crisis situation and are a physical barrier to even applying for funding.
3. **Care packages for people with progressive illnesses designed to increase with time.** Though all progressive illnesses show different patterns of decline, there is one constant - care needs increase as conditions progress. And while this may seem obvious, it is not an aspect taken into great consideration by any state-funded care system. People known to their respective state-funded service provider will almost inevitably wait extensive periods of time to access any extra funding, despite our very clear understanding of how conditions decline.
4. **Extensive bursts of care for people with newly acquired disabilities.** Often the shock of an accident for a family can contribute to the difficulty they face in taking on the role of carer. From living a normal life, to suddenly being given the role of an unpaid and full-time carer can lead to severe psychological distress and isolation. Our experience has shown that vast majority of people in this situation want their loved one to stay at home, but feel ill-equipped. If families were provided the opportunity to learn alongside professional carers that taper off over time, younger people suffering traumatic injuries would have a notably lower level of entry into aged care as a result of a crisis situation.

Instances of young people going into aged care following a long hospital stay are also a common occurrence. A lack of disunity between government departments is partially responsible for this. State-funded health and disability services operate independently of one another despite the obvious need for an overlap, and in general show little initiative of working collaboratively. →

While admissions into hospital for people with high care needs are always due to an illness or a sudden decline, their ability to recuperate to a point of returning home is often severely diminished and they tend to require rehabilitation services once their immediate health issues are met.

Hospitals operate to provide acute care services and patients no longer needing acute medical care end up using the limited resources hospitals have available. With poor communication between disability and health departments, where families are unable to take their loved one home immediately they are often put under immense pressure to remove their loved one, and aged care is usually the only available suggestion. Typically this is suggested as an interim solution until an alternative arises.

Youngcare has seen this happen repeatedly, and finds the most concerning aspect of this situation the suggestion that placement into aged care following a hospital stay will only be temporary. All evidence suggests that this is seldom the case, and worse still, even a very short stay in aged care can have lasting negative impact. It is significantly more difficult to assist someone to leave aged care, than it is to prevent them from entering it.

Based on our involvement in these cases, Youngcare makes the following recommendations to prevent admissions into aged care following a long hospital stay.

1. **A strong and interconnected relationship between health and disability services, throughout all states and territories.** This is pivotal to preventing new admissions from hospital into aged care. While the two sectors remain disassociated from one another, aged care will continue to present as an option.
2. **Purpose-built slow stream rehabilitation units.** The importance of this is crucial to not only helping people to eventually move home, but also in reducing long-term costs of care. There is ample evidence to suggest that placement in aged care contributes to a decline in patients' conditions, because they provide neither adequate therapies, and also because the model of care offered is tailored to helping people in their twilight years. There is neither the intent nor the ability to help a younger person recuperate or rehabilitate in aged care and then return home.

Finally, and certainly the most preventable reason for younger people being placed into aged care is the result of carer burnout. This situation is disheartening for two reasons. Firstly because this is almost never spontaneous; it is generally the end of a long battle with cries for help and support left continually unanswered. These situations are predicable, and in this way, ought to be easier to prevent.

Secondly, if families are driven to forfeiting guardianship of their loved one whom they have dedicated a life of caring for, this is indicative of the level of distress they have reached. As a community, this is truly shameful that this is has been allowed to happen.

The problem of carer burnout implies an obvious solution; more funding for respite care and more respite facilities. However, Youngcare acknowledges that this is a problem the National Disability Insurance Scheme (NDIS) aims to rectify, and a wide scale interim solution before the full roll-out is unlikely. In light of this, Youngcare continues to see this scenario and will continue to assist where possible, and can offer a short term remedy through the Youngcare At Home Care Grants (AHCG) program.

For young people at risk of entry into aged care, Youngcare has offered AHCG up to the value of $10,000 for respite, equipment or home modifications since 2009. Requests for respite historically tend to dominate application requests. Where Youngcare identifies high and immediate risk, and if the potential for assistance to keep the applicant home for at least one year is evident, the grant is successful. Many applicants reapply annually, and ample evidence suggeststhis is an effective short term solution, with success lying in requesting a respite plan from the applicant. Youngcare stipulates clear evidence of the format in which respite hours will be used, and evidence that the carers are awarded a sufficient break. This can also mean the difference between carers maintaining a job, and consequently a mortgage and a house. The ramifications of providing micro-grants have a wide-reaching domino effect not only for the young person and their carers, but their wider networks as well.

"It is significantly more difficult to assist someone to leave aged care, than it is to prevent them from entering it."

What has historically been a roadblock to accessing community housing for many people in aged care is their lack of access to paid supports. However, the coming of one of Australia's biggest social reforms, the NDIS, should cover people under 65 in aged care. And for the first time, there will be up to 7,000 young people with high care needs, with sufficient funding for their care, but nowhere to live.

Prevention is always better than cure, and for people who are already in aged care, leaving is substantially more difficult than avoiding entry. Youngcare specialises in building age-appropriate accommodation solutions designed to accommodate young people with high care needs while maximising their choice, independence and dignity. There will always be more calls enquiring about how to move into a Youngcare apartment or house, than Youngcare can ever build, but our ideas are replicable. Both Youngcare's evidence-based design and model of care are valuable tools and resources for consumers, service providers, and investors to draw on to develop appropriate, best- practice services that will make a difference to the lives of young people with high care needs.

Food Safety Still the Number One Priority for Caterers

The health of our nation is always on the agenda of news outlets, so it's no surprise that eggs and food safety procedures have been prominent in the media recently. It's of ongoing importance that best practice and stringent measures in food safety are at the forefront of the food industry.

Commercial kitchens are known to be amongst the most pressure-cooked work environments around, so it has never been more important for caterers to be able to trust in the products they serve, when the heat is on.

One way caterers can feel confident in the product they serve, is to research and ensure food comes from reputable sources where stringent food safety protocols are in place.

"Food safety doesn't have to be daunting, it just needs diligence."

Sunny Queen prides itself on its Quality Assurance and food safety programs, and recommends that customers ask their suppliers detailed questions about their QA protocols. Sanitation and cleaning procedures, pest control programs, precise cooking protocols, microbiological testing and traceability are just some of the quality protocols Sunny Queen has in place as part of its Quality Management System.

Food safety doesn't have to be daunting, it just needs diligence. Sunny Queen Meal Solutions' products provide the perfect solution for busy kitchens looking for safe, nutritious, interesting and above all tasty menu options. Sunny Queen Meal Solutions are all fully-cooked or pasteurised, eliminating the need to use raw eggs so real egg dishes can be served with confidence.

Whether it's a function for 100 guests or meal time for 10,000 hospital patients, eggs are an incredibly versatile, nutrient-rich food source, making them the perfect choice for busy caterers. Egg based Meal Solutions available from Sunny Queen include Smashed Egg, Homestyle Poached Egg, Fritters, Egg Bites, Omelettes and pasteurised liquid products.

Food Safety Tips

To minimise the risk of adverse health outcomes Sunny Queen Australia recommends the following:

- **Do not use cracked or dirty eggs.**
- **Shell eggs, once cracked, should be fully cooked before consumption.**
- **Use of pasteurised egg pulp for making sauces, batters, custards and other uncooked egg products.**
- **Always sanitise benches and equipment to avoid cross contamination between raw and cooked products.**
- **Always clean your hands thoroughly before and after handling egg and egg products.**
- **Follow the recommended storage, thawing and cooking/heating guidelines.**

Sunny Queen Meal Solutions

- Real eggs, laid on Sunny Queen Farms
- High sanitation and cleaning practices
- Pest control programs
- Temperature-controlled supply chain
- Strict biosecurity protocols
- Approved, accredited suppliers
- All products are fully traceable
- All products have best before dates for safe consumption

Smashed Egg

Fritters

Omelettes

Poached Egg

Sunny Queen Meal Solutions

» For more information please visit **www.sunnyqueenmealsolutions.com.au**

Managing Diabetes as you age

The *National Diabetes Service Scheme* (NDSS) recently conducted a national survey of people aged over 65 years and their carers and healthcare professionals. With more than 740,000 (63%) of people on the NDSS over the age of 60 years, the survey identified that many diabetes resources were not tailored to the information needs of older people.

As a result, the NDSS has developed a series of booklets which give good general advice and tips about living with diabetes for older people.

Managing diabetes as you age has information to help people manage the effects of ageing and diabetes. It includes information such as how to treat a hypo, sick day management guidelines and Advance Care Planning. The booklet also covers issues specific to older people such as memory loss, managing falls and managing multiple medicines.

Healthy eating has information about healthy eating and food choices for older people living with diabetes. Much of the mainstream food and nutrition information is not targeted at people in this age range and the booklet covers topics including nutrition and daily food needs as you age, healthy weight ranges for older people, losing your appetite and how to gain weight if you are sick, frail or have lost weight. It has daily meal plans, delicious recipes and tips for shopping and cooking for one or two.

You and your health care team has information to help people with diabetes to understand and work with their healthcare team. It also covers programmes and plans that older people living with diabetes can access including GP Management Plan, Team Care Arrangements, Home Medicines Review and Aged Care Assessment Team/Services. It includes information on how to make the most of a visit to the doctor and what to do when sick including sick day management guidelines and who to call and when. It also has information about personal alarms which can be very useful for older people with diabetes who live alone.

The booklets were developed in consultation with older people, health professionals and a panel of experts in the subject of diabetes and ageing. The booklets are in large print and are very clear with tables and dot points to make the resource easier to read.

Below is a sample of the booklet contents:

- Getting older can mask some diabetes symptoms
  - It can sometimes be difficult to tell the difference between symptoms and signs that are caused by diabetes and those that are part of the ageing process. For example when you were younger, and your blood glucose levels were high, you may have felt thirsty. As you get older, if you have high blood glucose levels you may lose your sense of thirst. This may affect the way you manage your diabetes and may unknowingly cause you to become dehydrated.
- The blood glucose targets you had when you were younger may no longer be safe for you as you age
  - If you are frail, or if you take other medicines or have other health problems, you may be at greater risk of hypoglycaemia ('hypo') and falls. Once you turn 65, ask your doctor to review your blood glucose targets regularly.
- Growing older can add extra risk factors which can lead to hypo
  - These risk factors include having a poor appetite, being on four or more medications, or having kidney disease or other illnesses or conditions. You may find that your hypo warning signs change as you get older. When you were younger, early warning signs of a hypo may have included hunger, sweating, weakness, trembling, headache, dizziness, and tingling of the mouth and lips. As you get older, your warning signs may become less obvious. You may just feel tired or confused or you may feel

"The booklets were developed in consultation with older people, health professionals and a panel of experts in the subject of diabetes and ageing."

FEATURE STORY

nothing at all. If you think your warning signs have changed, please discuss this with your doctor or diabetes educator.

- The way our body uses medicines can change with age, and medicines can work differently if you have a poor appetite, miss a meal or become less active
  - There is help out there, in the form of aids and information. If you are concerned about the number of medicines you are taking and how they interact, you can ask your doctor to arrange a Home medicines Review for you. A specially qualified pharmacist will visit you at home, and go through the medicines you take and your daily routine. The Home Medicines Review will provide your GP with recommendations about how best to manage your treatment in line with your lifestyle routines and health conditions. From here, your GP will work with you on any necessary adjustments.
- Many older people worry about their ability to think clearly and remember
  - For most older people, thinking and memory stay relatively intact in later years. However, if you or your family notice that you are a having problems remembering recent events or thinking clearly, let your doctor know. All people with diabetes over the age of 65 should have their memory checked by their doctor once a year.
- As we get older, we have a higher risk of falls that can cause serious injuries
  - Having diabetes further increases that risk because you may experience hypos or hyperglycaemia, or your diabetes may have affected your vision, balance or the feeling in your feet. You are also more likely to be on multiple medications, which can also increase your risk of falls. It is important to let your doctor know if you are worried about falling or if you have a fall, even if you don't hurt yourself.

Further reading

The Older People with Diabetes National Development Program is funded as part of the National Diabetes Services Scheme which is an initiative of the Australian Government administered by Diabetes Australia. Leadership for the Older People with Diabetes National Development Program is provided by Diabetes Tasmania.

The booklets Managing Diabetes As You Age, Healthy Eating and You and Your Health Care Team are available online at ndss.com.au or by calling the NDSS Infoline on **1300 136 588**. For more information about the development of the booklets or about other resources relating to diabetes and older people, contact: Caroline Thomas, National Program Leader at **cthomas@diabetestas.org.au**

How can innovative packaging save staff time and reduce patient frustration?

Using highly trained nursing staff or food service personnel to help patients access their food by opening packaging can be a waste of time, money and resources. It is not just a source of frustration for patients (especially the elderly or those with fine motor skill difficulties), but is also a barrier to nutrition.

For that reason, SPC worked in consultation with HealthShare NSW to develop a more accessible product and tested the new packaging with the Institute of Bone and Joint Research at the Royal North Shore Hospital to develop a range of new nutritionally balanced, portion controlled fruit cups under the SPC ProVital brand. These cups make it easier for people with fine motor skill challenges to access the range of cups.

'SPC ProVital packaging is recyclable and offers cost savings and efficiencies within the healthcare system as well as improving overall patient experience including:

- ✓ **Saves time and resources** by reducing the time needed to help people with their food
- ✓ **Reduces patient frustration** by empowering them to choose and access the nutrition they deserve whenever they want
- ✓ **Reduces direct and indirect costs** such as time to serve, cost of container, storage, waste, cleaning, labelling, etc.

The Australian made SPC ProVital range is made of 100% Australian fruit* and comes in an easy open cup, aiming to provide more accessible quality nutrition for consumers with fine motor skill difficulties through a number of key features:

- A textured and lengthened pull tab for easier grip.
- Optimised seal to reduce opening force.
- Decagon shape for easier grip.
- Clear instructions for opening.
- Smaller grip span for easier hold.
- Extra-large font for improved legibility.

SPC ProVital is currently running a Product Familiarisation Program within the Sydney healthcare environment to gain end user insights and staff and executive recommendations on how hospitals should engage with the new SPC ProVital portion control cups. Interim results from 129 patients aged 50+, with and without motor skill difficulties are very promising. Key findings include;

- 9 in 10 (90%) patients preferred the new cup to the current cup
- 85% of patients with impairment identified less pain opening the new cup compared to the current cup
- 4 out of 5 patients found the labeling extremely clear for the ProVital cup vs only 1 out of 5 patients with the old cup
- 9 in 10 (93%) patients claim the new cup is easier to open than the old cup.

The SPC ProVital range now available.

SPC ProVital is an:

- Australian Innovation
- Australian Made
- Australian Fruit*
- Australian Quality

* excluding the fruit salad which has imported pineapple

spc ProVital™

» For more information please call your SPC representative or call us on **1800 805 168**

spc ProVital™

Easy Nutrition *for life*

- Easy open packaging
- 7 delicious fruit combinations
- Portion controlled Australian fruit cups
- Developed in consultation with health care professionals

For more information please call your SPC representative or call us on 1800 805 168

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Quality in Aged Care is Underpinned by a Strong Workforce

In her recent Press Club address, the Federal Minister for Health and Minister for Ageing, Sussan Ley, spoke about the Government's priority of ensuring choice and flexibility of age services for older Australians. Quality was a key theme of her speech, and quality is the topic of the month across aged care.

In NSW a parliamentary inquiry into nursing levels in aged care released its report at the end of October, and much of its recommendations relate back to quality improvements.

The inquiry was prompted by the removal of the high care/low care distinction in the federal Aged Care Act, which impacted on existing NSW legislation that required an RN be on duty at all times in a high care facility. NSW was the only state in Australia with such a requirement.

While this is currently a state matter, the inquiry called for an overhaul of the national aged care regulatory framework and for the NSW Government to drive national change in relation to staff-to-resident ratios and wage disparity between nurses in aged care and the public health system through COAG.

The implications of this would be far-reaching into health and community and disability services as we all draw from the same finite workforce, making mandated staff ratios in aged care a further workforce recruitment and retention issue for our health services, without the review providing any evidence that ratios will improve quality outcomes or quality of life.

In 2011 the Productivity Commission stated that "...across-the-board staffing ratio is a fairly 'blunt' instrument for ensuring quality care because of the heterogeneous and ever-changing care needs of aged care recipients - in the Commission's view it is unlikely to be an efficient way to improve the quality of care."

LASA supports this view and has serious concerns about any legislation change that does not enable greater flexibility of service delivery as this impacts providers and more importantly, older Australians receiving age services.

The key focus in any legislative or policy change – at state or federal level – has to be on quality outcomes and improving access to services. Age service providers need flexibility to adjust the profile of care as peoples' needs change.

We cannot ignore the fact that mandating staff ratios will generate significant staffing cost increases, which in turn stands to jeopardise quality and innovation if funds are diverted from these areas.

Eliminating incentives for providers to invest in innovative models of care, or adopt new technologies that could assist care recipients was another concern raised by the Productivity Commission back in 2011.

"Workforce issues including staff recruitment, retention and wage costs are one of the biggest ongoing challenges for age service providers".

If we look at the approaches by other countries with ageing populations and similar workforce shortages, in the UK they are focusing more on improving skills and diversifying training for accredited and care staff, which is a far more sustainable approach.

Already this year we have seen a number of landmark decisions which amplify existing workforce issues in age services, and will continue to do so if action isn't taken.

Workforce issues including staff recruitment, retention and wage costs are one of the biggest ongoing challenges for age service providers. Out-dated industrial relations frameworks, policies and legislation at federal and state levels currently hamstring many providers, irrespective of their business model, impacting the care of older Australians.

While we are still waiting on the government to confirm the work plan on a national aged care workforce strategy, a number of parallels can be drawn from the NDIS workforce strategy, which was published online in July 2015.

The draft workforce relations framework report released by the Productivity Commission shows promise of greater flexibility and legislation to support employers and staff to deliver care services outside of historically standard hours; a growing trend being driven by consumer directed care. However, until this framework is finalised and rolled out, the flexible care options particularly for home care services that require workforce flexibility will remain difficult or in many cases unachievable.

There are other options to boost our aged care workforce such as revised migration policies that would improve opportunities for skilled and semi-skilled care workers from overseas to join our age services workforce on both short and longer term arrangements.

Separate to the Productivity Commission inquiry, LASA is already working with representatives from both government and the opposition on alternate workforce models, which includes different models for migration intake.

In addition to everyday care, changes to migration policies should address changing cultural diversity within our ageing population by matching target countries to CALD demand.

While often considered an interim solution, it must also be realised that revised migration or immigration opportunities is not a silver bullet for our needs and such migration policies will still take at least two years to implement – longer if training programs need to be developed and rolled out in the countries we seek to draw staff from.

Therefore migration policy changes need to be considered in concert with other initiatives identified and developed as part of a single workforce strategy.

Focus in age services must be on continuous improvement rather than regulation or compliance. This will only be achieved through supporting access and availability of age services that reflect population needs via facilities, accommodation and a strong workforce.

The fact remains we need 80,000 more beds in the next eight years to meet demand in residential care alone while investment is needed to meet demand for in-home services that will ramp up as the baby boomers enter their 70s from next year.

It is up to industry and consumers to work together to improve access to information and services, enabling care and accommodation more effectively and efficiently. With aged care now back under the health portfolio and with a seat at the cabinet table there is greater opportunity for new solutions to issues that cannot be developed for our industry in isolation from health such as workforce strategy.

Ethics in the Country

Colin Thomson discusses the educational challenges in professionalism for rural and regional health professionals.

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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.

There is little doubt that rural and regional areas of Australia are in need of more health professionals - not only general practitioners, but nurses and suitably trained allied health professionals. In relation to General Practitioners, the Commonwealth Government has dedicated funds to be used by university medical schools to train general practitioners to meet the need.

A characteristic of the medical schools that are supported by these funds is that they have adopted a different curriculum structure from the long-standing six-year, undergraduate entry programs. These newer curricula compress the overall training program to, typically, four years and are only open to candidates with previous degrees. In addition, many of these schools add admission requirements that seek to address the need for relevant personal and professional experience that offers a sound basis for confidence that, as medical graduates, these students will have not only the essential intellectual achievement but the character and maturity that will equip them for rural and regional practice.

One other reason for seeking this further evidence is that these curricula expose students to clinical experience much earlier than traditional programs did. In the program with which this author is familiar, students begin clinical rotations in the second half of the second year and complete a full year clinical placement in a rural or regional general practice.

In preparing the students for both those placements and their continuing professional careers, the features of rural and regional Australia that are likely to present professional ethical difficulties need to be considered. Living and working in small, often close-knit communities where extended family members know much about the life and health and experience in the healthcare system of their relatives. Further, they are often comfortable discussing these, a frankness and degree of shared knowledge that can confront health practitioners with new contexts in which to address conventional professional ethical obligations. These obligations have a characteristically individualistic focus, for which a mutually agreed sharing of life experience can be a challenge.

The close-knit community that such a clinically placed student or new general practitioner is now part of may also be much more comfortable with giving and exchanging gifts in appreciation of services rendered than in urban and often less personal settings. Although these gifts may not be given with any intent of attracting preferential treatment, nonetheless a refusal to accept them may appear discourteous and inconsistent with the spirit in which they were intended and community practice and understanding.

It may also be the case that clinically placed students or newer general practitioners appear eligible partners for local residents. Negotiating the overlapping territories of professional obligation, personal courtesy and social life in such communities is likely to be difficult.

Realistic examples include:

- While visiting the local base hospital to see a patient, a doctor notices another, elderly, patient of whose admission the doctor was unaware, although the doctor has treated the patient for most of her adult life. Having quickly reviewed that elderly patient's hospital file (without asking the patient), the doctor, as he is leaving the hospital, assures the elderly patient that he (the doctor) has checked the patient's file and assures the patient that she is being well cared for.
- The doctor has, on several occasions, seen a patient, L, who has been demonstrating symptoms of depression, although usually has reasons why she is tired or run down. At the local hardware on a Saturday afternoon, the doctor sees L's sister-in-law (also a patient of the practice) who mentions that L and her husband are having relationship problems and that the family thinks she might be drinking heavily, depressed, and possibly pregnant to someone else.
- The doctor, single and recently arrived in a rural town, has been seeing one patient regularly from arrival. The patient has a minor muscular skeletal injury that requires frequent consultations. The doctor is attracted to the patient who has, subtly but apparently deliberately, indicated that the attraction is mutual. A local festival in support of a health related charity involves a dinner-dance to which the patient invites the doctor.
- A newly arrived doctor in a coastal town is a keen fisherperson and joins a local fishing club. One of the members, whose young children are frequent patients for treatment of asthma and allergies, begins to regularly drop by the doctor's surgery with gifts of freshly caught fish.

Conventional responses to these situations emphasise that

- both the clinically placed student and a doctor have underlying obligations of confidentiality to patients and should not disclose information provided by patients to others;
- doctors should avoid relationships with patients that could compromise independent clinical judgment; and
- doctors should decline gifts that could influence independent clinical judgement in treating patients.

However, these responses now need to be considered in the light of the real processes of smaller community life. These include:

- the importance of being accepted by that community
- the maintenance of suitable courtesy
- living as an engaged community member, and
- showing respect for the genuine concern that family members have for others.

The Medical Board of Australia has developed a code of practice for medical practitioners - "Good medical practice" that was been developed by the Australian Medical Council: **http://bit.ly/1tANTrV**

The Code offers nuanced and practical guidance that will assist in resolving many of these dilemmas and will be the source of guidance for practitioners. However, what will remain important is how to abide by this Code in the rural community context, where the modern challenges seem to far exceed those of nearly forty years ago, so memorably explored by John Berger in his *A Fortunate Man: The Story of a Country Doctor*.

In these situations, what are likely to be needed are readily available and experienced professionals to act as sounding boards for the discussion of situations that present practitioners new to rural and regional communities with these ethical challenges. Providing these sounding boards in sufficient number in Australia's vast rural and regional communities continues to be a significant educational and professional development challenge.

Financial Incentives in Healthcare Delivery?

In 2012 the *Australian Commission for Safety and Quality in Health Care* (The Commission) and *Independent Hospital Pricing Authority* (IHPA) undertook a literature review to identify Australian and international hospital pricing systems that integrates quality and safety. This literature review was recently augmented with a supplementary briefing and literature update.

The following is an excerpt from the 2015 update as accessible at safetyandquality.gov.au. It seeks to outline whether financial incentives have genuine potential for application in health care and driving clinical behaviour, or whether there are more effective approaches based on review of other industries.

The majority of studies evaluating the various incentive schemes in healthcare fail to produce conclusive evidence for their effectiveness in raising quality of care and patient outcomes.

This may be partly attributable to the design and execution of the evaluations, recognising the difficulty in scientifically evaluating the effect of an initiative across a complex, dynamic and changing system. However, it is prudent to ask the question of whether financial incentives have genuine potential for application in healthcare and driving clinical behaviour, or whether there are more effective approaches based on review of other industries.

This section briefly examines:

1. Learnings from other disciplines regarding pay-for-performance (P4P) in healthcare, including
   a. potential motivation of healthcare providers
   b. innovation and adaptation to local context.
2. Key differences of 'successful' schemes identified in the P4P literature.

Learnings from other academic disciplines and settings

Evidence from disciplines such as behavioural economics and psychology suggests that while financial incentives improve performance in menial, repetitive tasks, their effect in complex, cognitively challenging work is far from clear. In settings that include healthcare they can exhibit a neutral, even detrimental effect.[1]

Some useful insights can be drawn from literature on how financial incentives interact with other motivators. Most of these address how financial rewards exhibit a tendency to 'crowd out' other potential behavioural motivators: [2-3]

- Tangible rewards, particularly monetary ones, undermine motivation for tasks that are intrinsically interesting or rewarding.
- Symbolic rewards (e.g. recognition) do not crowd out intrinsic motivation, and may augment it.
- The negative effects of monetary rewards are strongest for complex cognitive tasks.
- Crowding out effects tend to reduce reciprocity and augment selfish behaviors.
- Crowding out may spread (both to other tasks and to co-workers), decreasing intrinsic motivation for work not directly incentivized by the monetary rewards.
- Crowding-out is strongest when external rewards are large; perceived as controlling; contingent on very specific task performance; or associated with surveillance, deadlines or threats.

Evidence from the education setting in the US does not support financial incentives as positively influencing professional performance. Schemes to improve high school teaching and students' academic results in the US have been unsuccessful. In some instances student achievement even declined following application of incentives.[4-5]

In healthcare, a key additional factor is that it is increasingly a 'team sport' where outcomes are ultimately dependent on a people and systems interacting in concert with one another. It is difficult to incentivise team work with bonus payments to individuals, which is why how incentives are distributed among those whose behaviour they are intended to influence is important.

This may also explain why financial rewards tend to be more effective in healthcare settings when applied to tasks or objectives not contingent on collaboration (e.g. radiology reporting times; immunisation).

"Manipulating greed as an engine for quality or other healthcare policy objectives may be too simplistic."

Provider motivation

While the quality improvement literature has identified many causes of failures in healthcare quality (poorly designed workflow and systems; undue commercial influence; knowledge gaps; reliance on inappropriate heuristics; poor communication and insufficient teamwork), "not trying hard enough" is rarely cited.

Yet the application financial incentives implies that a lack of motivation is seen by policy makers as a key factor in poor quality care.

This points to flaws in the economic assumptions underpinning financial incentive schemes, particularly the wholesale application of these to all aspects of human endeavour. The orthodox view that monetary reward is either the only motivator, or amplifies other, intrinsic motivators such as personal pride, professional norms and standards or altruism appears to be challenged by findings in healthcare and other similar domains. These arguments are not new.[6]

In reality, the behaviour of healthcare providers may be driven by a range of interacting factors including:

- Intrinsic rewards
- Competitiveness
- Professional norms and standards
- Reputation among peers and the community
- Remuneration.

The range of influences on the functioning and performance of a healthcare system, as well as how individuals and groups within this system interact, is illustrated in Figure 2 (adopted from Appleby et al, 2012).

The relative importance of these will vary between the healthcare professions and disciplines. However, manipulating greed as an engine for quality or other healthcare policy objectives may be too simplistic and, as conveyed by various commentators, should be approached with caution. While financial incentives may play a role, they should not supplant other behavioural incentives which may include:

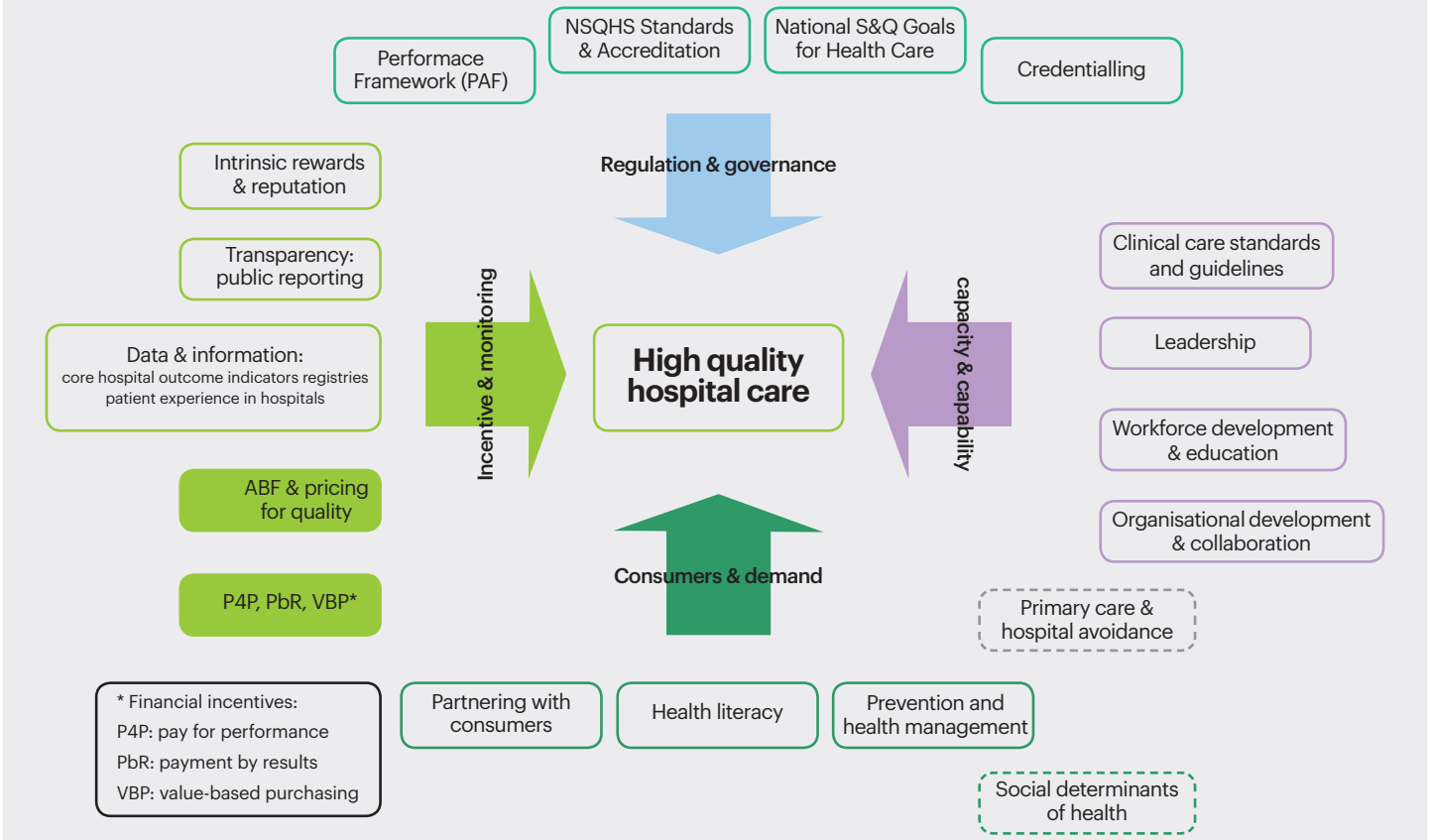
- Timely feedback of performance data to stimulate improvement.
- Providing information on performance in comparison with peers and benchmarks.
- Encouraging and supporting opportunity for local innovation.
- Providing granular information on how systems and processes can be improved in a local context.
- Harnessing other motivators such as collaboration, teamwork and collective achievement of results.

Innovation local context

The findings of Appleby and colleagues stress the need for adaptability and local innovation. Harnessing local ingenuity and innovation is promoted by organisations such as the Institute for Healthcare Improvement (IHI), and empirically supported in large system transformation.[7]

An Australian example of local practice improvement resulting in both better patient outcomes and efficiency is provided in the box on the next page. →

Figure 2. Factors in health system performance and provider behaviour



Door to balloon times at Sir Charles Gairdner Hospital (SCGH)[8]

Timely primary percutaneous coronary intervention (PCI) has proven mortality benefits over thrombolysis for treating ST-elevation myocardial infarction (STEMI). These benefits are time dependent with longer door-to-balloon (DTB) times associated with higher mortality. Guidelines recommend DTB times < 90 minutes in 75% of cases presenting to institutions providing primary PCI. Australian registry data suggest these targets are rarely achieved.

A team at SCGH implemented an interdepartmental protocol of patient transfer from ED to the Cardiac Catheterisation Laboratory (CCL). Two important steps of the primary angioplasty pathway were improved: the decision-making process and transfer of the patient to the CCL.

The change in the admission and transfer system through ED resulted in immediate and sustained improvements with a highly significant 20-minute reduction in median DTB time and a marked increase in the proportion of patients with < 90 minute DTB times. Secondary outcomes are likely to include reduced morbidity and complications, shortened NOS and earlier discharge.

This illustrates an effective process redesign at clinical microsystem level to ensure consistent evidence-based care. [8]

Key aspects of 'successful' schemes

There are some common traits of P4P schemes demonstrating a desirable effect. These include inter alia:

- engagement of key stakeholders in the design of schemes
- use of reliable data and metrics that are 'accepted' by the those whose behaviour is being influenced
- adaptation to local requirements and context
- the targeted activity not excessively dependent on collaboration and team work.

Comparing the Advancing Quality (UK) with PHQID (US) schemes

Comparing the evaluation of the Premier Hospital Quality Improvement Demonstration (PHQID) project with the 'Advancing Quality' (AQ) scheme provides some useful insights. Both are fundamentally similar, and both function on a 'tournament' basis. PHQID evaluations have repeatedly failed to demonstrate outcome benefits[9-12] whereas positive results associated with the UK scheme are emerging.[13-14]

What are the key differences? Firstly, the incentives in AQ are larger and distributed among a wider spread of high performing hospitals. Whether this is the key is debatable as there is no clear consensus in the literature.

Second is the way in which participants implemented and applied the schemes. From the outset, CEOs of AQ participating hospitals agreed that bonuses would not be taken as personal income but "would be allocated internally to clinical teams whose performance had earned the bonus" 13(p1822). The bonuses were re-invested in quality improvement activity such as:

- Employment of specialist nurses
- Development of new or improved data collection systems for regular feedback to clinical personnel about local performance

Moreover, despite the competitive nature of the scheme, staff from all participating hospitals in northern England regularly met face-to-face to discuss issues and share learnings.[13] No such re-investment of bonuses, or collaboration with peers (with the exception of 'webinars') was evident in the PHQID scheme.

It could be argued that financial incentives alone are perhaps not sufficient unless coupled with other interventions which tap into other motivational factors listed above. Indeed, financial bonuses could be seen as a facilitator of these.

It is clear that the success of financial incentive schemes in complex healthcare organisations depends strongly on implementation and application, as well as their design and theoretical underpinnings.

A checklist for implementation of financial incentive schemes

Glasziou and colleagues note that while financial incentive schemes can sometimes improve the quality of care, such schemes can also be an 'expensive distraction'.[15] They propose a checklist to prevent inappropriate implementation and unintended consequences of such schemes.

A. Planning
1. Does the desired clinical action improve patient outcomes?
2. Will undesirable clinical behaviour persist without intervention?
3. Are there valid, reliable, and practical measures of the desired clinical behaviour?
4. Have the barriers and enablers to improving clinical behaviour been assessed?
5. Will financial incentives work, and better than other interventions to change behaviour, and why?
6. Will benefits clearly outweigh any unintended harmful effects, and at an acceptable cost?
B. Implementation
7. Are systems and structures needed for the change in place?
8. How much should be paid, to whom, and for how long?
9. How will the financial incentives be delivered?

1 This may explain why there is stronger evidence for P4P in settings where recipients work individually and where the work is discrete (e.g. immunisation rates, radiologists' reporting times).

2 PHQID participation is voluntary whereas AQ is compulsory.

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Herman Miller revolutionises the patient chair:

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The Herman Miller Nala Chair is the first patient chair in the world to embed the leading ergonomics from Herman Miller task seating into a patient chair. When researching the chair, Herman Miller discovered that most patient seating was not designed for comfort but rather as a place to put a patient to test if they could tolerate being upright. Herman Miller approached the design of the chair by asking:

"What if a chair could actually be good for the patient to be in? And what if it gave a patient a comfortable and supportive alternative to the bed?"

Researchers engaged with more than 200 caregivers in more than 19 hospitals and healthcare systems to learn about patient seating and what worked and didn't work in current patient chair offerings. They also consulted ergonomists, physical therapists, gerontologists, and more than 70 healthcare designers.

They found that when a person sits in a chair and uses its reclining backrest, disc pressure can drop by as much as 20 percent. As people age some can develop a great curvature in the upper back, with rounded shoulders and a forward slump. With a large thoracic curve, the backrest actually has to recline quite a bit more, up to 40 degrees, just to keep the neck and upper thoracic regions upright.

Nala's Harmonic tilt mimics the natural movement of the patient's body. The chair's back and seat move synchronously, opening up as the patient reclines and tilting around the body's natural pivot points. Patients can rest anywhere within a 24-degree recline range. Dampening cylinder controls movement for large- or small-statured patients.

Collaborations biomechanics engineers, ergonomics experts and geriatric physicians led to a greater understanding of the biomechanics of a person rising from a chair. This meant a focus on a few features: armrest design, foot space under the chair and seat height.

The ability for patients to place their feet on the floor, which means the chair must have a lower seat height, was found to be more important than a higher seat to assist ingress and egress. While recliners with integrated footrests might provide a means to elevate the feet, they also prohibit patients from effectively shifting their weight by planting their feet under the seat. An open area under a chair more effectively assists the patient.

Armrests that pivot out of the way can help caregivers with some types of transfers and provide access to the patient while seated. Wider, soft and angled armrests give patients a comfortable place to rest their arms and provides a guide and leverage tool for transferring safely into and out of the chair.

Using the chair is easy – both arms pivot out of the way, the patient can recline using either hand, the recline movement is smooth and easy.

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Vernacare is a leading infection control organisation, manufacturing and distributing innovative single-use system and award winning products for human waste management.

Vernacare pioneered the single-system more than 50 years ago, to help reduce the risk of cross-infection and save nursing time, whilst minimising the environmental and cost impact of alternative re-usable systems. They are the only company to manufacture the complete human waste disposal system, including pulp disposal unit and a full range of medical pulp products.

Their pulp container products are manufactured using 100% over-issued clean newspaper. As the biggest medical pulp moulder in the world, producing around 150 million units per year, they have invested heavily in automation and quality control measures to ensure that the product quality is of a consistently high standard.

With over 200 employees across the UK and North America, working alongside a global network of international partners, the Vernacare system is supported by specialist teams who provide the highest standards of educational support, technical assistance and customer care to a varied customer base across over 50 countries worldwide.

Vernacare launches new 'touch-less' macerator Vortex Plus

Global pulping technology manufacturer Vernacare is setting new standards in infection prevention with its new Vortex+ disposal unit, which uses 'touch-less' technology to ensure that the disposal of patient waste from toileting and washing is entirely hands-free.

The new Vortex+ is activated via a foot sensor to open and close the machine, eliminating the need for any hand movement or contact. This reduces the risk of cross-infection when disposing of fibre-moulded bedpans, urinals and other products containing human waste.

The new technology can be 'auto-start' enabled, which means that when the lid closes, the machine starts automatically without the need to press a start button. As well as eliminating hand contact, the 'auto-start' upgrade also prevents multiple waste containers 'stacking up' in the machine. This overcomes the potential problem of overloading the machine and ensures the effective flow of the disintegrated waste particles through the drains.

"The original Vortex is widely considered to be a market-leading machine, but the new Vortex+ macerator offers some important improvements", said Emma Sheldon, Vernacare UK Group Marketing Director. "The hands free operation and 'auto-start' features have both been created with input from our customers. The automatic start upgrade is particularly useful in older installations – helping to keep the drains clear by reducing the pulp-to-water ratio".

The new Vortex+ retains the original closed-drum system of the existing Vortex model. With its sealed, water-filled hopper and unique twin-blade design, the machine ensures that waste products are broken down into a fine slurry.

The new model retains other original Vortex features, including an integrated automatic anti-bacterial deodoriser which cleans and disinfects inside the machine at the end of each cycle. A self-diagnosing display panel, together with manual emptying override, also makes machine maintenance easier.

The Vortex+ is highly energy efficient because it operates using a cold water process. In addition, its powerful 1kW three-phase motor enables a rapid cycle time of just two minutes for up to four pulp waste containers. Soundproofing has been incorporated into the new system design to allow use during the night.

The Vortex+ is manufactured to ISO EN 9001:2008 standards and tested to ensure compliance with CE and BS requirements.

Vernacare is the only company worldwide to manufacture a complete single-use human waste disposal system and has been a global market leader for more than 50 years. Its system helps to reduce the risk of cross infection and improve environmental performance, while saving nursing time and generating cost savings.

The Vortex+ machines and fibre-moulded disposable products – from wash bowls and bedpans – to male and female urinals – are designed, engineered and manufactured at Vernacare's award winning UK production facility.

The new Vortex + is available through EBOS Healthcare, exclusive Australian and New Zealand distributor of the Vernacare waste disposal system.

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Our proven method of construction for shielded rooms uses copper, the best material for MRI and medical shielding applications. Copper has the highest conductivity, durability and corrosion resistance of any commonly used shielding material. Combined with our range of superior quality RF shielded doors, windows and components our customers can be confident that a shielded room built by Faraday will perform to specification. Imaging "artifacts" are eliminated, giving radiographers a crystal clear view of the intended scan and improved diagnosis of the patient's condition.

Our shielded rooms are finished with the maximum amount of patient care and ambience available. It is our goal to make the patient feel as comfortable and relaxed as possible within these conditions. Contact Faraday to discuss our range of innovative patient comfort products.

Not only are our products of the highest quality, so too is our customer service. Our Site Managers are there every step of the way to guide and support healthcare professionals to provide clear and accurate understanding of the project delivery.

Faraday has a dedicated in-house team that can capably construct your project in any given location, be it locally or in remote locations of Australia or New Zealand. We test our shielded rooms using international test standards to ensure we meet specifications, and we invite our customers to witness the testing.

We also offer a unique in house design service utilizing Revit™, Navisworks™ and Autocad™ software, enabling us to provide a complete design solution from simple shop drawings to 3D models and BIM (Building Information Modelling)

Faraday's staff also possess extensive technical capability, providing a range of consulting services including EMF consultation and on-site ambient magnetic field testing to assess the suitability of proposed MRI sites within your building. Our team can perform a site assessment and identify issues which could potentially cause costly redesigns before they occur.

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Battery Powered Trolleys & Movers a Breeze to Use

Materials Handling has a wide range of solutions that suit safety and productivity in the Healthcare industry. They are a proud supplier of a number of ground-breaking **Australian Made** solutions & are committed to developing and increasing health and safety at all levels of this sector.

They offer an amazing range of innovative and intuitive Bed Movers. One device in particular is the EVO Bed Mover. It's the ultimate safety device for organisations that want to easily transport patients in beds. With a unique battery powered design, the EVO Bed Mover is effective, simple to manoeuvre and takes up little space especially in lifts.

Another recent release is the Drover Stand On battery operated tug. It is ideal for situations where staff may currently be walking long distances throughout their working day. They do this with linen & food trolleys, waste bins and most mobile equipment. With Drover Tug these trolleys are pulled effortlessly whilst saving worker fatigue.

Polymedic are a proud Australian manufacturer of trolleys for the health and aged care industry. Materials Handling have worked with Polymedic to power drive their range. There is an extensive range of powered trolleys constructed from this hospital grade, lead free poly materials.

To improve their worker's safety & reduce their fatigue Prince Charles Hospital in Brisbane have just taken delivery of five EVO Bed Movers together with a number of Tugs that are used for waste bin movement & in their stores area. If you have an idea in mind, but are unsure what product would be best then Materials Handling can provide one of their Custom Solutions to help solve your workplace problem.

The new Bedlift, Bed Stacker, has had an amazing positive reception from many hospitals. The Bedlift is a space saving vertical storage solution and a cost effective way to remove unused "hallway beds" from hospital corridors and store them in a neat and easy to access fashion.

Materials Handling tailor make products to meet requirements and budget, whilst satisfying workplace obligations. They say, don't compromise safety. Power your existing needs!

MATERIALS Handling Working with ease...

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For more information please visit **www.materialshandling.com.au/products/evo-bed-mover/**

St Vincent's Private Hospital

– Operating rooms

DuPont™ Corian® Solid Surface was selected as the primary wall lining material for the refurbishment of Operating Rooms at St Vincent's Private Hospital Sydney, following a collaborative prototyping process including rigorous bacterial, chemical, stain and impact resistance testing.

Critically, the seamless joining capabilities of Corian® allowed the walls to be constructed without any visible conventional joints which are natural weak points when striving for a completely clean environment. The refurbishment was completed within an existing building and the flexible detailing properties of Corian® accommodated building movements and vibrations.

Impressively, on-site construction began on the 24th of December 2014 and only seven working days into the programme the full structure of both operating rooms had been assembled, significantly reducing the construction time and impact on the adjacent live operating theatres and surrounding hospital environment.

The seamless joining, forming and lighting attributes of DuPont™ Corian® allowed exacting functional requirements with an aesthetically driven response.

Radius-formed corners further assist with the ease of surface cleaning, which is essential in sterile environments such as Operating Rooms.

Wall-washing perimeter lighting enhance the purity of DuPont™ Corian® in Glacier White colour and distribute light evenly and without shadow.

The contrasting Aspen colour of DuPont™ Corian® was used to establish a 'Services Reticulation Zone', intended to rationalise the complexities inherent with medical services and associated outlets in Operating Rooms. The entirety of DuPont™ Corian® was cut, formed and pre-assembled off-site, significantly reducing site times and ensuring accuracy upon installation.

The client has embarked on a further programme of Operating Room refurbishment utilising DuPont™ Corian® as the selected wall lining.

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Designer: **Angel Mahchut Pty Ltd**
Builder: **Cadwell Construction & Interiors Pty Ltd**
DuPont™ Corian® fabricator: **Norford Industries in conjunction with Benchmark Architectural Joinery Pty Ltd.**
Photos: **Kevin Chamberlain Photography**

Corian® was selected as the primary wall lining material for the refurbishment of Operating Rooms at St Vincents Private Hospital Sydney, after rigorous bacterial, chemical, stain and impact resistance testing.

To find out more about the endless applications of Corian®, call **1300 267 426** or visit **www.casf.com.au**.

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ENDLESS EVOLUTION

Australian Healthcare Week 2016

15th -17th March 2016: Australian Technology Park, Sydney

THE ANNUAL MEETING PLACE FOR AUSTRALIA'S HEALTHCARE INDUSTRY

This year's event will feature 80+ International and Australian Healthcare thought leaders who will share solutions to the challenges you face and look to influence the direction of the industry going forward.

What's new in 2016?

In 2015 the event cemented its position as Australia's largest one-stop-shop for healthcare stakeholders looking to develop strategies to address the challenges faced during infrastructure development and ICT integration across our healthcare facilities. In 2016 I'm excited to announce the following new additions to Australian Healthcare Week:

- New conferences on Healthcare Procurement and Aged Care
- A new and expanded exhibition layout, including specific zones for Healthcare Technology, Medical Devices and Healthcare Facilities Design and Development
- 3 on floor stages in the exhibition hall for healthcare futurists, cutting edge technology showcases and product demonstrations

Australian Healthcare Week is the only event that addresses healthcare infrastructure development, ICT management, procurement and aged care all under one roof.

"Not only the best healthcare conference I've been involved in 10 years in the industry, but the best tradeshow in general. The organisation and communication from IQPC was fantastic from beginning to end, the quality of people who came to our stand were great, exactly the audience we need to be speaking to. We are looking forward to the next one!"

David Perry, Peacock Brothers

Event Information

To register or to view the full program, visit **www.austhealthweek.com.au.** By registering to one event, you will have access to attend the three main two day conferences.

Australian Healthcare Week Exhibition

DAY 1 15 March 2016	DAY 2 16 March 2016
HEALTH FACILITIES DESIGN & DEVELOPMENT Conference Day 1	HEALTH FACILITIES DESIGN & DEVELOPMENT Conference Day 2
HEALTHCARE EFFICIENCY THROUGH TECHNOLOGY Conference Day 1	HEALTHCARE EFFICIENCY THROUGH TECHNOLOGY Conference Day 2
HEALTHCARE PROCUREMENT Conference Day 1	HEALTHCARE PROCUREMENT Conference Day 2
Hospital CEOs Roundtable	Hospital CIOs Roundtable
Aged Care CEOs Roundtable	Hospital CPOs Roundtable

DAY 3 17 March 2016

AGED CARE Focus Day

RETROFITTING HEALTHCARE FACILITIES Focus Day

Australian Healthcare Week Exhibition

AUSTRALIAN HEALTHCARE WEEK

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15-17 March 2016
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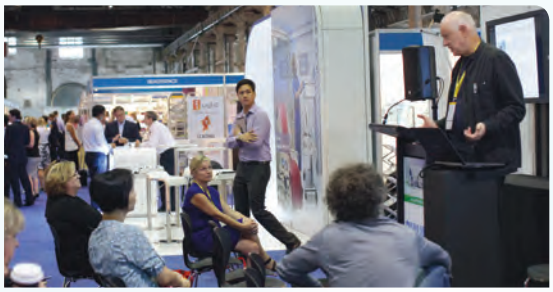
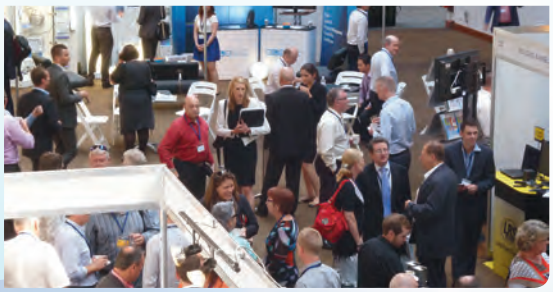
Your gateway to the right providers for your healthcare projects

- Three day healthcare design, construction/ engineering, medical equipment and technology exhibition
- More than 100 exhibitors
- On-floor demonstrations and presentations
- Latest technologies, products and services
- Unrivalled networking opportunities

Who should attend this exhibition?
Anyone involved in the design, development, technology provision, patient experience and project management of health facility and aged care projects.







*This free exhibition pass does not include entry to the Australian Healthcare Week conferences. To find out more about the conferences, visit www.austhealthweek.com.au.

*The expo passes are subject to availability

To get your free pass, visit www.austhealthweek.com.au and register your details

COVER STORY

5 Essential Steps for Strategic Procurement

Hugh Watson discusses the steps involved in running a procurement contract along with ideas for planning a second or subsequent tendering process.

To meet the increasing demand for aged and healthcare services more facilities will need to be built and extended, additional computers and other equipment will need to be procured and extra cleaning and other services will need to be provided. The challenge is to ensure that limited funds go as far as possible so providers can continue delivering high quality services to a growing number of patients.

With time and budgetary pressures, a significant information imbalance with contractors and suppliers, long lead times and a raft of unknowns, procurement projects can be daunting. There are, however, steps you can take to maximise the value of your investments and to help deliver your procurement projects on time, on budget and without costly and time wasting disputes.

1. Have the right team

Before you start any major procurement make sure you have the necessary experience and resources. If you and your team are not experienced in running procurements, there are a range of project managers and other consultants who can help. To find the right person for the right job check for experience on projects similar to your project and seek people who understand and reflect your values, priorities and objectives.

If you engage a consultant, the consultancy agreement you sign them up to should clearly set out what the consultant must do and protect your rights and entitlements. Similarly, the consultant's remuneration should be aligned with your interests. For example, a common remuneration model on building projects is to pay the consultant a percentage of the total build costs. With this remuneration model the consultant is paid more if there are budget overruns, yet you want build costs kept to a minimum.

2. Competitive tension

After determining the optimum project delivery model and preparing a tailored contract, it is time to select a contractor or supplier. Best practice procurement would have you run a competitive tender. So, rather than using the contractor or supplier you used last time, or only asking for a price from one person, you ask a number of people to bid. Competitive tension between tenderers helps keep them "honest", thereby achieving better value for money and a better risk allocation for you. It is unfortunately all too common that, when a contractor or supplier knows it has got the job, it will seek more than if there is a risk of losing the job to another person.

You should strive to maximise and maintain the competitive tension when you are looking for a contractor or supplier. Amongst other things you should:

- not appoint a preferred supplier until all of the technical, commercial and legal issues have been resolved to your satisfaction. It is not necessary to negotiate with all tenderers, but the option of bringing such parties back to the table should be maintained; and
- structure your tender to require tenderers to tender on the same basis to help get an "apples with apples" comparison. Clients are very good at comparing price, but unless what is being priced is the same or relatively similar (including legal and technical requirements) it is a relatively meaningless measure.

3. Selecting your project delivery model

One of the key determinants of a successful procurement project is whether it has been set up correctly from the start. That is, has the optimum framework or approach for the delivery of the project been used?

There are a range of project delivery models out there, but unfortunately clients often run their procurements the same as their previous ones, not realising that there may be ways to achieve better value and efficiencies or that the new procurement may warrant a completely different approach.

When it comes to delivering aged care building projects, for example, organisations are attached to construct only contracts. Under such contracts design responsibility is retained by the aged care organisation and the builder is only responsible for construction issues. Aged care providers say they do this as they understandably want to ensure that their new building meets all of their residents' needs. There are, however, alternative procurement models which can give organisations this design control and comfort while passing additional risk and responsibility to other people. Clients seldom consider these options.

The important thing to realise is that there is no one size fits all approach to selecting the optimum project delivery model. You need to carefully think about your procurement priorities and delivery drivers and select the model that will deal most effectively with the complexities and risks on your project.

This does not mean ticking through the usual suspects of what you could do. Rather, you should turn your mind to all manner of possible delivery models. Is there, for example, something the sharing economy (that is the Ubers and Airbnbs of this world) can teach you? This is not as silly as it may seem. More and more organisations are today working out exactly what they need and concluding that it makes more sense to share their assets, resources or requirements with another similar organisation so that costs and responsibility are also shared.

The optimum project delivery model for your project will be influenced by a range of considerations, including:

- project objectives and characteristics, eg the need to "fast track" delivery and budget constraints;
- your resources, capacity and expertise in project management and contract administration;
- the degree of complexity of the project, ie "business-as-usual" versus a special "one off" procurement; and
- the potential to achieve value for money through letting multiple packages of work concurrently and taking advantage of economies of scale.

Once you have selected the appropriate project delivery model it is then important to ensure that the corresponding contract is tailored to you and your project. No two projects are the same, so project specific amendments are generally required to all contracts on all projects. Further, on building projects it must be remembered that Australian Standard form contracts, such as the AS4000-1997 construction contract, do not work "off the shelf" and that they need a large number of amendments to address recent legislative changes, to improve their clarity and operation and to provide some additional protections to the client. →

"Clients often run their procurements the same as their previous ones, not realising that there may be ways to achieve better value and efficiencies or that the new procurement may warrant a completely different approach ."

→ 4. Retain ownership of your project

It is essential that you retain ownership of how your projects are set up and run. This is because contractors and suppliers are only required to build, clean or deliver what the contract specifies they must. You can have the most robust legal terms and conditions in the world, but if the technical requirements or service description does not detail exactly what you want, there is unfortunately not much you can do about it as that is the legal bargain the parties struck.

It is very important therefore that you clearly articulate in the contract what your needs, requirements and expectations are. You should not delegate this entire role to consultants, contractors or suppliers. If, for example, you are going to extend your hospital, make sure you are working hand in glove with the architect so she is designing what you actually want and need. You do not want her to go off thinking she will win the next architectural award at your expense. If you are procuring a new IT system, do not just let the equipment vendor tell you what it can supply. Instead, work out exactly what you want and ensure that your IT contract requires them to work towards that.

It is, after all, your project, and reputation and budget which are at risk, so it is up to you to ensure that it is right.

Hugh Watson
Principal, Moores

Hugh Watson is a Principal at Moores, where he focuses on drafting and negotiating construction, supply, maintenance and other commercial agreements. Hugh also advises clients across the aged and healthcare sector on:

- procurement strategies and implementing projects to achieve efficiencies and greater value; and
- project and claims management to help deliver projects on time, on budget and without disputes.

5. Manage the project after contract signing

Once a contract is signed clients commonly leave the project to pretty much run itself. However, my experience makes it clear that:

- knowing and using the contract you have signed rather than leaving it in the "bottom draw";
- sensible and pragmatic contract administration; and
- considered communications with contractors, will help ensure that projects are delivered on time, on budget and without costly and time wasting disputes.
- This is the case irrespective of whether you have engaged an architect or other consultant to administer the contract for you. Accordingly, take the time to develop your team's understanding of the contract and their capacity to effectively administer it.

Further reading

If you would like further advice on procurement strategies, and the structuring and implementing of projects, to achieve efficiencies and greater value, please contact Hugh Watson on **(03) 98432185.**

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FEATURE STORY

Device Technology Procurement: Shifting Focus from Cost to Value

Health technology assessment is an evidence-based approach which is rapidly being adopted across the globe to help deal with the complex question of device procurement within hospitals. *Dr Eugene Salole* explains.

"Oh, East is East and West is West, and never the twain shall meet..."

In relation to new healthcare technology - with focus on cost-containment on the one hand and rising patient demand coupled with the desire for improved health outcomes on the other - Mr Kipling, the Mumbai-born English author, poet and Nobel Laureate's cliché may seem to also hold true in the context of hospital budget-setting and purchasing decisions. Not necessarily so, however; in this sphere there continues to be steady progress towards engagement between the twain, as a result of a shift away from exclusive consideration of cost towards more focus on benefit delivered.

Hospital procurement officers in Australia face the same daunting issues as their counterparts in Canada, the UK and other developed nations with universal coverage ('national health') systems, in particular escalating costs, maintenance of a high quality of service provision and the continual availability of innovative, often expensive, technologies to help deliver care. Balancing access to potentially effective devices, which might enhance the delivery of quality care and improve patient outcomes, against setting (and not blowing) the hospital budget is a delicate and difficult task. At the heart of the dilemma is the issue of value: what benefits may the hospital or local purchasing group expect to receive, in terms of improved clinical outcomes, from investing in a particular class of technology or a specific product? An evidence-based approach which is rapidly being adopted across the globe to help deal with this complex question is 'health technology assessment' (HTA).

Health technology assessment (HTA)

In brief, HTA is a multidisciplinary research activity which aims to evaluate a new technology (or procedure or service) with the objective of providing decision-makers with robust recommendations upon which they may base adoption and funding decisions. It does this by explicitly gathering and evaluating the evidence around a product – the information available in support of the benefits claimed (clinical or otherwise), and also potential harms, and all the cost implications of adopting the technology (its likely utilisation rate, maintenance costs, etc.) – and then comparing these facets with the characteristics of the alternative products available [1]. This may appear to be no different from what usually happens when device procurement decisions are made - but the key distinctions with the HTA approach are that it is, first and foremost, data-driven; benefits (and potential harms) need to be substantiated by hard evidence, preferably from experimental studies like clinical trials, and all relevant costs identified.

Secondly, and crucially, both the benefits and costs are then compared against those of a viable alternative, the 'comparator', which might be the product in current use or nothing at all (perhaps 'usual care' in a clinical setting). It is this explicit assessment of a new device technology against its comparator, in terms of both benefit and cost, that delivers the information from which its relative economic value, its cost-effectiveness, is gauged (Figure 1).

The evidence for benefits (and potential harms) of a technology is usually collected by researching the peer-reviewed literature, or may be supplied by the vendor (as is often the case when studies were not openly published, but available from the manufacturer as 'whitepapers'), then appraised critically for quality and content, and finally the results summarised. In circumstances where data is available from several studies, the process of literature collection, review and summation is known as systematic review and meta-analysis, which usually concludes with an overall statistical point-estimate of the benefit as well as its range of uncertainty [2].

Usefulness of HTA

The economic evaluation component of HTA provides, at a minimum, the potential short-term (1-5 years) impact of purchase and adoption on the hospital budget; but it can also deliver an estimate of the economic value of the new product, its relative cost-effectiveness, in terms of dollars per tumour detected for example, or better, cost per successful health outcome, such as an additional year of survival gained. This figure not only frames the value of the new product but can (depending on the type of outcome measure used) also place it within a spectrum of cost-effectiveness for other technologies (even clinically unrelated ones), or procedures or services, on the basis of which rational purchasing decisions may be made across a broad range of options [3].

In principle, HTA can be applied to purchasing choices for any product, procedure or service; from a more user-friendly but more expensive handwash to a new piece of diagnostic imaging capital equipment. However, because undertaking HTA requires some expertise and is time consuming, its comprehensive form is best confined to situations involving significant expenditure or risk, and where uncertainty about the cost-effectiveness of the new versus the current is important, e.g., in Australia, applications to list on the Medicare Benefits Schedule (and thereby attract both government subsidy and private health insurance funding) new surgical procedures closely associated with innovative technologies involves going through a rigorous HTA process [4]. That said, so-called 'mini-HTA' or 'rapid HTA reviews', less expansive but more timely assessments, often undertaken to address →

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His previous experience includes senior roles in global medical device and pharmaceutical companies in Australia, pro bono consultancy work for the WHO Essential Drugs Programme in sub-Saharan Africa, and advisory work for the Canadian, UK and Nigerian Departments of Health. His work on value of innovative healthcare technology is regularly published in peer-reviewed literature, and he is privileged to serve as Conjoint Associate Professor in the Faculty of Medicine, University of New South Wales, Sydney.

specific questions, are much simpler projects and have proved useful, particularly in the context of hospital procurement [5].

Looking ahead

HTA is not always easy to practise or always practicable [6], but its utility, philosophically and in practice, is its focus and reliance on evidence – thereby providing purchasers, policy-makers, healthcare providers, and also consumers, with a data-driven, transparent, contestable framework within which value-for-money discussions might be had and decisions made. For this reason, HTA has become installed on the global healthcare scene as a key tool to rationally control expenditure, and in many jurisdictions has been integrated as a formal part of the healthcare funding process (usually in relation to reimbursement at the patient level) – for instance, the Australian government has made it clear that HTA is key to achieving its overall objective of delivering a safe, effective and efficient health system that is also fiscally sustainable in the longer term [7].

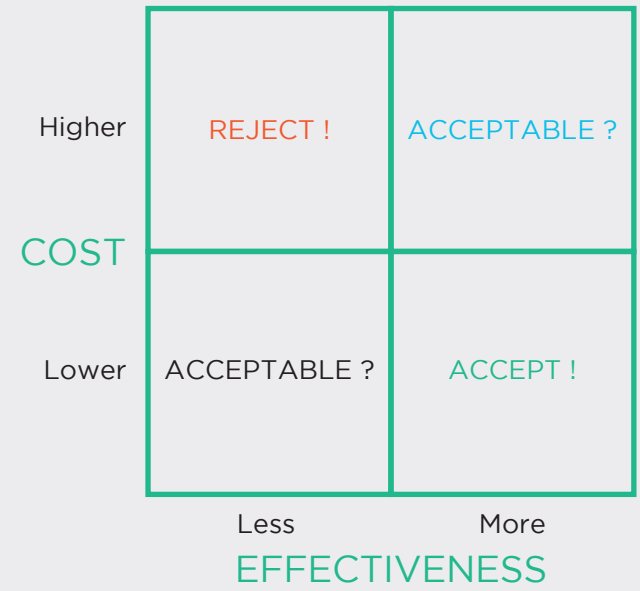
However, some issues remain. Whereas 'HTA thinking' is well entrenched in relation to pharmaceuticals, on both the supplier and payer sides of the fence (e.g., it has been applied to the government subsidy of new medicines in Australia since at least 1993 [8]), in general the medical device and diagnostics sectors have lagged behind and continue to focus on selling specific features and benefits which purportedly differentiate one product from another, be it a stoma appliance or a sophisticated CT scanner, and not on substantiated health outcomes, the benefits which really matter [9, 10].

There are a range of reasons for this, including the extraordinary heterogeneity of medical technologies, an environment where rapid incremental innovations may result in product lifecycles as short as a few months, and the long time-lag before the true value (in terms of health outcomes) of surgically-implanted devices are realized [11]. However, things are changing - the worldwide concern about the sustainability of universal healthcare coverage in light of ageing populations, the epidemiological shift to chronic diseases and a shrinking tax base, as well as the current focus on quality of service, has turned attention towards device technologies and their relative value [12, 13].

In my view, the key recent development which will be a catalyst for change towards 'HTA thinking' in the devices and diagnostics sector is the lead shown by the CEO of a large US-based innovative device supplier, who has embraced the notion of value in healthcare and is enthusiastically steering the company down that path [14], making the likelihood that other medical technology suppliers will soon follow suit very high – and that would surely be a good thing, for all parties concerned.

"Balancing access to potentially effective devices, which might enhance the delivery of quality care and improve patient outcomes, against setting (and not blowing) the hospital budget is a delicate and difficult task."

Figure: The 'cost-effectiveness plane':
framework for making decisions based on clinical and economic value.



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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.

As 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 H^2O in CH^4 or H^2O in N^2). Their range of reactive gas mixtures include CO, NO, NO^2, SO^2, NH^3, H^2S 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.

What does a best practice P2P system look like, and how do you get there?

Healthcare organisations' critical, patient care-related activities are reliant on speedy payment and low costs within an environment of regulatory uncertainty and increasingly complex government legislation. The key to overcome the complexity and organise and optimise procurement procedures is found in the implementation of Purchase-to-Pay (P2P) systems. However, many healthcare organisations face huge challenges in migrating from a manual to an automated system.

The expansive nature of processes and the numerous orders and suppliers make adoption difficult, as does low supplier participation in invoicing initiatives. For these reasons, many healthcare organisations simply automate as much as they can without disrupting their supplier base, current processes, and finances but are not always successful.

Many procurement professionals understand the benefits. P2P systems provide data after requisition, leaving you to make corrections after the fact without off-contract spend and the rework it requires. Implementing it is a different story. The purchase-to-pay process (P2P) is a system which involves many different people and departments and the greater the number of people involved, the bigger the potential source of error.

The 2nd annual HealthProcure 2016 conference, being held at the Melbourne Park Function Centre in Melbourne from 16 – 18 February will welcome Neville Daffy, Procurement Systems Project Manager, Barwon Health and Charlie Way, Group Manager Property, Assets & Procurement, Southern Cross Care who will offer their insights into how they implemented a full end to end P2P system in their procurement divisions in order to maximise competitiveness. During their case studies they will identify how they overcame the implementation challenges when transforming from a decentralised into a centralised approach, what other health and aged care providers can learn from their failures and successes and how to further improve procurement excellence after the implementation is completed.

Bringing together more than 20 other senior procurement managers from private, public and not-for-profit hospitals, aged care operators, government departments and agencies and all other stakeholders in Australia's healthcare sector, this conference is the ideal opportunity for procurement and supply chain managers to meet, learn and share strategies and case studies to improve procurement outcomes.

Event Overview

Tuesday 16 February
Conference Day 1

Wednesday 17 February
Conference Day 2

Thursday 18 February

In-depth learning session A: Using data in order to achieve better stakeholder and supplier engagement outcomes in your procurement division.

In-depth learning session B: How to successfully outsource procurement activities in order to achieve improved performance in a shorter delivery time.

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- **Streamlining** procurement to pay processes (P2P) to maximise competitiveness
- **Stimulating** procurement performance through effective leadership
- **Delivering** more cost efficient procurement outcomes by designing agile operations
- **Analysing** how to reduce potential risks when procuring goods and services in the healthcare sector

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What if you knew who would walk into your hospital today- when and why?

Dave Piggott, Executive Director of Health IQ, investigates how the partnership between Austin Health, CSIRO and Health IQ works to provide Austin Health these answers.

Without the ability to accurately predict patient admissions, hospitals are limited in their ability to effectively plan for changing demand. As a result, they face a range of complex issues that negatively impact patient access and care, the financial position of the hospital, and their ability to comply with national targets.

FEATURE STORY

To better understand of how the challenges of planning ahead plays out for hospital decision makers, I spoke to Fiona Webster, Executive Director, Acute Operations at Austin Hospital.

It's been a long time since Fiona began looking for a way of predicting hospital demand more accurately - but still, like for most Australian hospitals, the Austin Hospital is limited in its ability to accurately forecast what the demand for even just the next day will be.

"We look to what happened the day before, at the average number ED presentations, the number of booked elective surgeries to try and estimate the demand for the next day. We also look at the number of patients waiting in the hospital and the number of estimated discharges for the day to gain visibility of the hospitals' capacity. If it looks like there's going to be significant gap between the expected demand and available capacity, the issue is escalated – so that actions can be identified to reduce the imbalance."

Dave Piggott
Executive Director Health IQ

Dave Piggott is the Executive Director of Health IQ, and is focused on helping Australian health services achieve better visibility and communication within and across their hospitals. Dave has over 20 years' experience in Health IT. A graduate of the Australian Institute of Company Directors (AICD) and with a Masters in Open Systems (IT), Dave has worked extensively in the Patient Flow area, and helped over 30 Australian hospitals to improve their flow of patients.

Why can't hospitals effectively predict demand?

Many disparate systems

Because of the large number of disparate systems in use, it becomes quite difficult to consolidate all the information required to reach a real picture of the demand they can expect. "The real swings in bed requirements happen not because of a single factor, but due to a coalescence of four or five factors. For example, we may reduce beds because a large number of surgeons are away on leave, but if there is suddenly an influx of patients coming in through ED, then we're left with too few beds. Currently, effectively tracking such disparate factors that may impact demand in the future is extremely challenging." said Ms Webster.

Limited understanding of what causes demand fluctuations

The disparate systems and limited visibility also means that the hospital has very little ability to identify the root cause of the various fluctuations – and by the time a cause is identified, the situation may have already changed significantly. There is no opportunity to identify and leverage past trends intelligently. "At the end of the day, we're simply making an informed guess."

What does that mean for Austin Health?

The limited ability to accurately predict demand is the cause of some fundamental challenges.

Last-minute decisions

Currently, demand predictions are often only possible the day before they are expected to play out. Due to this, decision makers only have a limited time to plan against these predictions – meaning that they are constrained in the actions they can take to address the expected fluctuations in demand.

Unfortunately though, elective surgery is one of these factors, and it's often the one that gets cut in order create more capacity. "Our ability to optimally flex beds and other resources is limited, so the default is cancelling elective surgery. Nobody wants to cancel surgeries: they take a lot of effort to set up, both on the patient's side and the hospital's. Cancelling them is very inefficient". In addition, cancelling surgeries can compromise a hospital's ability to meet their NEST.

Inability to effectively plan ahead

As a key decision maker, there are a number of levers Fiona has to manage as part of her planning – such as budgets, staff, beds, and other resources. However without long term demand forecasts to plan against, the opportunity to proactively optimise these levers is lost. For instance, take the holiday season. With many hospital staff going on leave, and demand generally reducing, a number of beds are usually closed. However each year, it's difficult to know exactly how many beds to close.

Even with past years' data and allowing for standard population growth, it's still a guessing game. If too many beds are closed, agency staff may need to be hired at the last minute. "If we did have the visibility of a large surge in demand in May for instance, then I would be able to plan ahead, hire the right number of staff now without relying on agency – but currently that's not possible."

Inefficiencies that cannot be resolved

As you know, hospitals are full of highly valuable resources, human and otherwise, and everyone does their job because they care about delivering the best outcome for their patients. In such an environment, not being able to address daily inefficiencies due to lack of demand prediction is very frustrating. →

→ However, more often than not, there'll either be elective surgeries cancelled due to too much demand or surplus beds that are not utilised... because demand can't be accurately predicted!

Towards a more accurate future

Fiona, who had long sought a better solution for patient admission prediction, was aware of the work CSIRO were doing on Patient Admission Prediction in Queensland.

"I thought, if you can forecast the weather, surely you can forecast the number of patients who we can expect to come through the door. When I heard that patient admissions could be predicted, and with accuracy, I was immediately interested."

What resulted was a partnership between Austin Health, CSIRO and Health IQ, who are working together to implement the Patient Admission Prediction Tool (PAPT) at Austin Health. Launched in October 2014, the tool is expected to provide Fiona and her colleagues the ability to better predict bed demand, optimise resource allocation, and maximise patient access in their hospitals. Fiona is looking to achieve accurate demand forecasts as much as one year in advance.

How it works

PAPT is a software tool that utilises complex algorithms by applying them to historical data in order to predict the number of patients admitted and discharged in the future. The tool runs unsupervised and updates data regularly, allowing new information to improve efficiency without draining staff resources. With 90% accuracy, PAPT can predict the number of expected presentations with specific injuries or illnesses, facilitating efficient planning of staff, beds and other resources.

Expected outcomes

Fiona looks forward to realising the trial's goals: "The ability to anticipate emergency department attendances and inpatient beds is an important aid not only to the daily challenges of bed management but it will forecast a year ahead which will assist with winter planning, hospital staffing and longer term capacity planning" (Austin Health, 2014).

While we're waiting to see exactly what outcomes Austin will experience at the conclusion of the trial in mid-2015, we can already see the benefits that have been experienced by Queensland hospitals who already leverage a version of this tool.

Specifically, it has helped these facilities improve their bed management, staff resourcing, and scheduling of elective surgery (CSIRO, 2014) – exactly the outcomes Fiona is looking for. From a patient standpoint, PAPT has enabled the delivery of improved healthcare outcomes, such as the timely delivery of emergency care, improved quality of care, and less time spent in the hospital (CSIRO, 2014).

For example, the tool played a central role at Gold Coast Health in managing the influx of patients during Schoolies. Dr James Lind, Director of Access and Patient Flow at Gold Coast Health says that of with PAPT's prediction technology, they are able to expect "around 2,700 presentations to our emergency department in total and around 20% of these will be school leavers in just the first week of the celebrations" (as quoted in CSIRO, 2013). This knowledge enables Dr Lind and his team to better plan the staff, medical supplies, and beds for this increased demand while also catering to the needs of other non-schoolies patients (CSIRO, 2013).

"I thought, if you can forecast the weather, surely you can forecast the number of patients who we can expect to come through the door. When I heard that patient admissions could be predicted, and with accuracy, I was immediately interested."

Further information

If you would like to find out more about how your hospital can take advantage of such improved demand prediction ability, please call Dave on **(03) 9425 8012** or email **dave.piggott@healthiq.com.au**.

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3 CSIRO. (2014, February 26). CSIRO. Retrieved from Cutting hospital waiting time: http://www.csiro.au/Organisation-Structure/Flagships/Digital-Productivity-and-Services-Flagship/Health-services/PAPT-case-study.aspx

Advocating for the rights of refugees and asylum seekers to access quality health

The Australian College of Nursing are working towards a brighter future through advancing nurse leadership to enhance the delivery of healthcare to all. The ACN has joined its medical colleagues in standing up for the medical care rights of asylum seekers.

Refugees and asylum seekers often have considerable health needs arising from psychological trauma, nutritional deficiencies, poor oral health status, poorly managed chronic diseases and the physical consequences of torture or sexual abuse.

At the National Nursing Forum in Brisbane, the Australian College of Nursing (ACN) released a position statement Quality Health Care for all Refugees and Asylum Seekers. The position statement articulates ACN's commitment to the protection of the health, welfare and dignity of refugees and asylum seekers and their children.

The Code of Ethics for Nurses in Australia recognises the universal human rights of people and the moral responsibility of nurses to safeguard the inherent dignity and equal worth in everyone.

Carmen Morgan, ACN President, stressed the importance of legislation, pertaining to refugees and asylum seekers, not interfering with nursing requirements under the Code.

"Governments must ensure that policies support the provision of high quality health care to all those seeking refuge in Australia. Refugees and asylum seekers are some of the most vulnerable groups. The nursing profession has a moral obligation to protect refugees' and asylum seekers' human rights, including their right to quality health care," Ms Morgan stated.

Further, the environment in which refugees and asylum seekers reside should protect and preserve their physical and mental health. It is imperative that children in particular are provided with positive social and physical environments, and childhood healthcare and education.

ACN will continue to advocate for quality healthcare for all those who require it, especially the more vulnerable members of the community.

"Governments must ensure that policies support the provision of high quality healthcare to all those seeking refuge in Australia."

Further reading

ACN's position statement can be found at **www.acn.edu.au/position_statements**

Why connected healthcare is more important than ever

The way healthcare is delivered is changing. Telstra Health is embracing that change to work with providers, patients, health workers and governments to build a better connected health system.

The complexity of an ageing population, increasing prevalence of chronic illness and unsustainable, rising costs means that, regardless of the role you play in the healthcare system, technology has never had a more important role to make healthcare easier for you.

However in order to realise the promise of lower costs, increased convenience, better experiences and improved productivity, technology needs to have not just innovation - but also integration. Integration will remove silos and see technology designed to match the patient experience across all parts of the health system.

That's why Telstra Health has acquired and partnered with 18 digital health companies that deliver solutions across the health system, including hospital and aged care, and is working to integrate them to create new solutions. Telstra Health strength lies not only in the world class solutions it can offer but its unique access to mechanisms to integrate those solutions to connect the health system.

It's the best of both worlds combining a team that includes clinicians, policy and strategy experts, engineers and technology developers with Telstra's heritage in networks and data security. Solutions are co-developed in partnership with customers to ensure that design and functionality meet the unique needs of Australia's health system.

Connected healthcare solutions

Clinical data management

Telstra Health offer integrated patient administration, electronic medical record and medication management systems for hospital, residential aged care and community care. Through automation and integration, they can reduce administration workload, avoid duplication and reduce errors. This offers providers the opportunity to realise efficiency savings, manage compliance risk and ensure long term sustainability.

Home health monitoring

Integrated solutions, including the unique MyCareManager, provide patient management, medical monitoring devices and telemedicine. They offer the opportunity for improved medication management and compliance as well as real time alerts if medical observations fall outside of a desired range. The bundling of complementary solutions allows the integration of health management into social e-systems that support clients at all levels of the self care continuum.

Health analytics

Quality can be measured through the world class Dr Foster health informatics solution, providing risk adjusted variation to allow true comparison of patient outcomes. The HealthIQ solution analyses hospital data to help you better understand patient flow and optimise processes and outcomes.

Telemedicine

With developed telemedicine platforms for GP (ReadyCare) and specialists and allied health providers (Anywhere Healthcare), Telstra Health can bring convenience and accessibility to care for both patients and staff. These solutions can be delivered independently or bundled with other solutions to extend usability, reach and outcomes.

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HEALTH

How Digital Health is Going to Revolutionize Healthcare

Regular readers of Australian Hospital and Health Bulletin

How does an industry that traditionally moves slowly, now move fast? How does an industry that has not been "consumer centric" now put the patient at the middle? How does an industry that formerly focused solely on "episodic care" now focus on the long-term well being of its consumer?

The healthcare landscape is changing quickly. And, digital health is happening now.

More and more healthcare devices and apps – including fitness trackers, connected scales, smart watches, blood pressure monitors and glucose devices – are flooding to the market.

More consumers are monitoring their health than ever before. Seven out of 10 people track their health or fitness in some way.

More caregivers – doctors, nurses, home health providers and family members – are monitoring health data to better manage and coordinate care.

And, technology – the epicenter of this health revolution – has never been as sophisticated and advanced. Technology is helping to solve the problems plaguing the healthcare system; as a result, more healthcare organizations are adopting and integrating technology than ever before.

Digital Health.
It's helping. It's happening. It's accelerating.

Validic recently conducted a global Digital Health Progress Survey to gauge the implementation of strategic digital health initiatives across healthcare organizations. There are many companies just beginning to think about digital health strategically, and what it means for their organization. And, there are many good examples of companies that are already successfully accelerating their businesses objectives utilizing digital health.

These organizations are using digital health to better coordinate care across their communities, improve their patient engagement strategies, enhance their remote patient monitoring initiatives, leverage for "speed to market" product advantages, and more efficiently manage their patient populations. These are the organizations reducing costs and improving outcomes on an individual and population level.

Healthcare today is technology-powered and moving quickly. Organizations can no longer afford to sit on the sidelines and risk getting left behind. For any organization, it is not too late to start thinking about and implementing digital health.

To learn more about the results from this global survey and read the insights from companies successfully implementing digital health, download the free whitepaper here. **http://bit.ly/1kOgklU**

About Validic

Validic is the healthcare industry's leading cloud-based, digital health platform. Validic provides convenient and quick access to patient data from in-home clinical devices, wearables and patient healthcare applications. By connecting its growing base of customers—that includes providers, pharmaceutical companies, payers, wellness companies and health IT vendors—to the continuously expanding list of digital health technologies, Validic enables healthcare companies to better coordinate care across their communities, improve their patient engagement strategies and more efficiently manage their patient populations. Validic's innovative, scalable and FDA Class I MDDS technology delivers actionable, standardized and HIPAA-compliant consumer health data from the best in-class mobile health devices and applications. Validic was recognized for healthcare innovation by Gartner and received Frost & Sullivan's Best Practices and Best Value in Healthcare Information Interoperability award, as well as Top Ten Healthcare Innovating Disruptor award. Validic's leading global digital health ecosystem reaches over 160 million lives in 47 countries and continues to grow daily.

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Digital Health is really happening and transforming healthcare now.

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Validic was recently recognized as the **Best Value in Healthcare Information Interoperability** and a **Top 10 Healthcare Innovating Disruptor by Frost & Sullivan**. Validic's leading global digital health ecosystem reaches over 160 million lives in 47 countries and continues to grow daily.

To see how Validic can help accelerate your digital health initiatives, please contact us at validic.com/contact

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FEATURE STORY

Protecting Health Information is Everyone's Business

This year the *Health Informatics Society of Australia* (HISA) released its guidelines for the protection of health information. This is an extract of the publication which is available for download on the HISA website.

In recent years, healthcare systems and healthcare information in Australia have been reimagined under increased communications provisions to remote parts of Australia, increased use of technology, economic challenges, remote patient care, and higher public expectations. Organisations have become more customer-oriented, focusing on quality and engaging in participative decision making. Healthcare is shifting under restructured governance, greater emphasis on outcomes, and the implications of the increased integration, scope, complexity, and use of information systems.

With all of these changes, it is now much easier for the system to affect people than for people to affect the system, which means that the rights of the individual may be at risk — in danger of being subjugated to the efficiencies of the system. Consequently, it is more important than ever for healthcare organisations to make sure that information is complete, accurate, available, and protected. Health information must be managed and used appropriately to benefit both patients and society. Neither society nor individuals should suffer from the changes being made to health information systems, from either too little or too much privacy protection.

Responsibility for personal health information (PHI) has traditionally demanded a duty of care and confidentiality from healthcare professionals. Along with financial information, health information is considered to be the most sensitive form of personal information; the public is acutely aware of the risks associated with its use and disclosure and the consequent need to use and protect it appropriately.

All Australian jurisdictions are moving toward using electronic health records (EHRs). With the integration of these healthcare information systems to support EHRs, healthcare professionals will, as things progress, be able to share PHI across jurisdictional and organisational boundaries, thus supporting the provision of improved healthcare services in Australia. In addition, the sharing of PHI supports the growing demand from consumers and healthcare professionals to include the "subject of care"[1] as a member of the healthcare team. In this scenario, subjects of care will have access to their own PHI, participate in their own care, and understand how their information is used and what their privacy rights are.

The Australian government has introduced the Personally Controlled Electronic Health Record (PCEHR). Presently, participation for individuals and healthcare organisations, is voluntary not compulsory. It will increasingly become adopted by healthcare organisations while government payment incentives are offered together with increased demand from patients. The PCEHR does not provide a comprehensive collection of an individual's health records but a centralised point for summaries and additional information to enhance existing health records. Currently, the content is limited to include: event summaries, shared health summaries, discharge summaries, Medicare data (e.g., MDS, PGS), together with data entered by the individual. Take-up continues to be gradual since the system is opt-in by both individuals and healthcare organisations. The necessary Security and Privacy is embedded into the systems design allowing individuals a range of controls on who can view their health information at a general and specific record level. This landscape creates urgency for healthcare organisations and professionals to ensure that PHI is being collected, used, and disclosed appropriately. Privacy and security safeguards are needed to protect the confidentiality, integrity, and availability of PHI, while simultaneously enabling healthcare professionals to access the PHI needed to provide appropriate and safe healthcare services.

"HISA Guidelines is an excellent starting point for understanding the value of tools such as privacy impact assessments, threat and risk assessments, privacy and security policies, and education programs."

How can this be done?

First, an organisation must determine its information protection needs and to do that, it should conduct a privacy impact assessment (PIA), gap analysis, and threat and risk assessment (TRA). Once information protection controls are identified, they must be aligned with legislative and regulatory requirements, health industry standards, and organisational priorities, and they must be balanced for cost and value. In short, any privacy protection system must be practical and sustainable, but at the same time, it must not conflict with legislation or undermine ethical principles. In the face of ongoing technical advances and increased public awareness, the goal of any privacy protection program must be not only to preserve the current level of public confidence in the health system, but to increase it. Without trust in the system and its ability both to treat illness and to preserve privacy, the duty of care cannot be fulfilled. →

Editor's note: At the time of writing these guidelines, the PCEHR was an opt-in system; whereas now the Federal government is trialling an opt-out system in selected areas. See our eHealth column by David More **(p112)** for further information.

Purpose and Scope

This publication, 'HISA's Australian Guidelines for the Protection of Health Information' *(HISA Guidelines)*, serves as a resource to assist the health sector as a whole, and especially healthcare professionals, to protect the PHI they require to do their work, and to meet their role and responsibilities. *HISA Guidelines* describe key security and privacy issues faced by healthcare organisations and offers guidance for responding to these issues. It is not an all-encompassing guide on the protection of PHI; rather, it is designed as a stepping stone to help healthcare organisations address common concerns, avoid confusion, and prevent misunderstandings.

In conjunction with applicable privacy legislation, security standards and information protection best practices, HISA Guidelines form part of a privacy and security framework designed to support the appropriate use and protection of PHI. There are the four major objectives of HISA Guidelines:

- To educate healthcare professionals and organisations about the privacy rights of their subjects of care.
- To assist healthcare professionals and organisations to minimise the risk of inappropriate, insecure, or unauthorised collection, use, disclosure, modification, storage, or destruction of PHI.
- To assist healthcare professionals and organisations to maximise the integrity, availability, and confidentiality of PHI, and the efficacy of administering authorised access.
- To assist healthcare professionals and organisations to design and/or implement programs to protect the privacy and security of personal health information.

Benefits of Using HISA Guidelines

The extent of the benefits you and your organisation may derive from this publication will depend on the organisation's current understanding of information protection issues and the maturity of the existing information protection program. Our hope is that you find the information here assists and supports progress in developing, implementing, and improving your organisation's program.

If your healthcare organisation already has an established information privacy and security program with a designated information privacy officer, you may find the descriptions of fundamental information protection structures and mechanisms to be a review. In that case, your organisation may use HISA Guidelines to identify gaps and enhance existing practices and safeguards and as a tool to advance education and awareness. You will also benefit from the discussions on new privacy laws, technologies, threats, risk management, and other leading best practices in the field.

If your healthcare organisation has only recently begun to identify information protection as an organisational priority, or is introducing new health information systems, or technology, you will benefit from the detailed information provided. HISA Guidelines is an excellent starting point for understanding the value of tools such as privacy impact assessments, threat and risk assessments, privacy and security policies, and education programs. You may use the information provided here as a basis for developing organisational capacity, safeguards, processes and policies, and you can build on this base by exploring the suggested resources listed in the appendices, which provide more detailed information on specific subjects.

Whatever your starting point, you and your organisation will benefit by relying on HISA Guidelines. It is updated regularly by a panel of Australian national and international experts to reflect the latest knowledge in the field. You can use this publication confidently, knowing that you are doing your best to reduce privacy threats for both your organisation and the people it serves.

'HISA's Australian Guidelines for the Protection of Health Information' (HISA Guidelines), edited by Peter R. Croll; Patricia A.H. Williams; Emma Hossack

published 2015 by Health Informatics Society of Australia Ltd is available for download at http://healthprivacy.org.au/

References

[1] "Subject of care" is a term recognised and used by the International Organization for Standardisation (ISO) to refer to patients, clients, and residents of healthcare organisations. While not an elegant term, it is currently accepted internationally as the best one to use at this time.

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Dr Alan Greene, M.D., USA, founder, drgreene.com; Chief Medical Officer, Scanadu, USA. Scanadu's team is one of the seven finalists competing for the prestigious $10 million Qualcomm "Star Trek" Tricorder XPRIZE

HOW BIG DATA IS BEING LEVERAGED IN HEALTH & WELLNESS

Chris Edwards, USA, Chief Marketing Officer, Validic, the industry's leading digital health platform

HOW WEARABLE TECH IS CHANGING HEALTHCARE

Andrew Ronchi, the brainchild, founder and CEO behind Melbourne-based technology company dorsaVi

HOW THE GENOME REVOLUTION IS CHANGING EVERYTHING

Associate Professor Marcel Dinger, Head of Clinical Genomics, Garvan Institute

CAN PSYCHOLOGY BE DIGITISED?

Associate Professor Jane Burns, founder and CEO of the Young & Well Cooperative Research Centre

Who Attends?

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Improving the referrals process to create living documents for safe and rapid clinical transitions.

Timely, accurate and complete clinical referrals are critical for patient care, yet probably one of the most poorly managed areas. Healthcare providers are facing new challenges on how to enable the safe and timely transition of patients and patient information between providers, at the heart of which is the patient referral.

The majority of referrals today are still paper-based, resulting in slow and inefficient patient transitions. Paper-based referral systems lack visibility, traceability and standardisation. Content is often lost in translation, illegible, may contain little or no standard clinical information, may be open to misinterpretation and is subject to transcription errors. At the same time, disconnected hospital and primary care EMRs fail to safely collaborate or provide closed loop transitions.

As a result, patients are missing out on receiving the appropriate treatment at the right time - including wasted visits and duplication of tests and questions, while providers are potentially suffering from increases in operational costs and labour and the need to make decisions on incomplete information. By and large, it's a drain on resources and has a major impact on clinical outcomes.

If integrated successfully, an electronic referral (e-referral) solution will not only benefit an organisation's budget, but also that organisation's reputation and patients' wellbeing. Wait times will be reduced significantly which, in turn, increases capacity of referrals, decreases administrative costs and reduces the duplication of tests.

Alberta Health, Canada, is a great example of a healthcare system that has already encountered these challenges and has introduced an electronic inter-facility referrals system across the province using Orion Health Clinical Referrals. This electronic referrals system allows Alberta physicians to send other caregivers specific referrals that are needed for a patient along with electronic documentation from the patient's medical record. The referring physician can track the status of the receiver's actions to ensure that the patient's needs are met and also track the outcomes.

Clinical referrals helps administrators find bottlenecks and delays in the delivery of care, and can help a patient receive advice quickly from a specialist rather than waiting months to see a specialist. Clinical Referrals not only ensures the coordination of care, but also reduces duplication and unnecessary delays in delivering a cohesive care experience.

In fact, wait times have been reduced by as much as 90% in some cases at Alberta Health (https://orionhealth.com/white-paper/success-in-transforming-to-a-value-based-system/), in turn, this has decreased the number of patient episodes - not only saving money, but most importantly, helping to save patient lives. Better workflows at the clinical level means shorter patient wait times and improved communication between patients, specialists and referring physicians. It also allows healthcare providers direct centralised access to data, ensuring patient safety and better patient care.

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At Orion Health our modern technology solutions capture all the information about an individual in one record, then shares and coordinates that knowledge across the entire community - transforming illness into wellness and keeping the healthy well. For a successful journey to Population Health Management think Orion Health.

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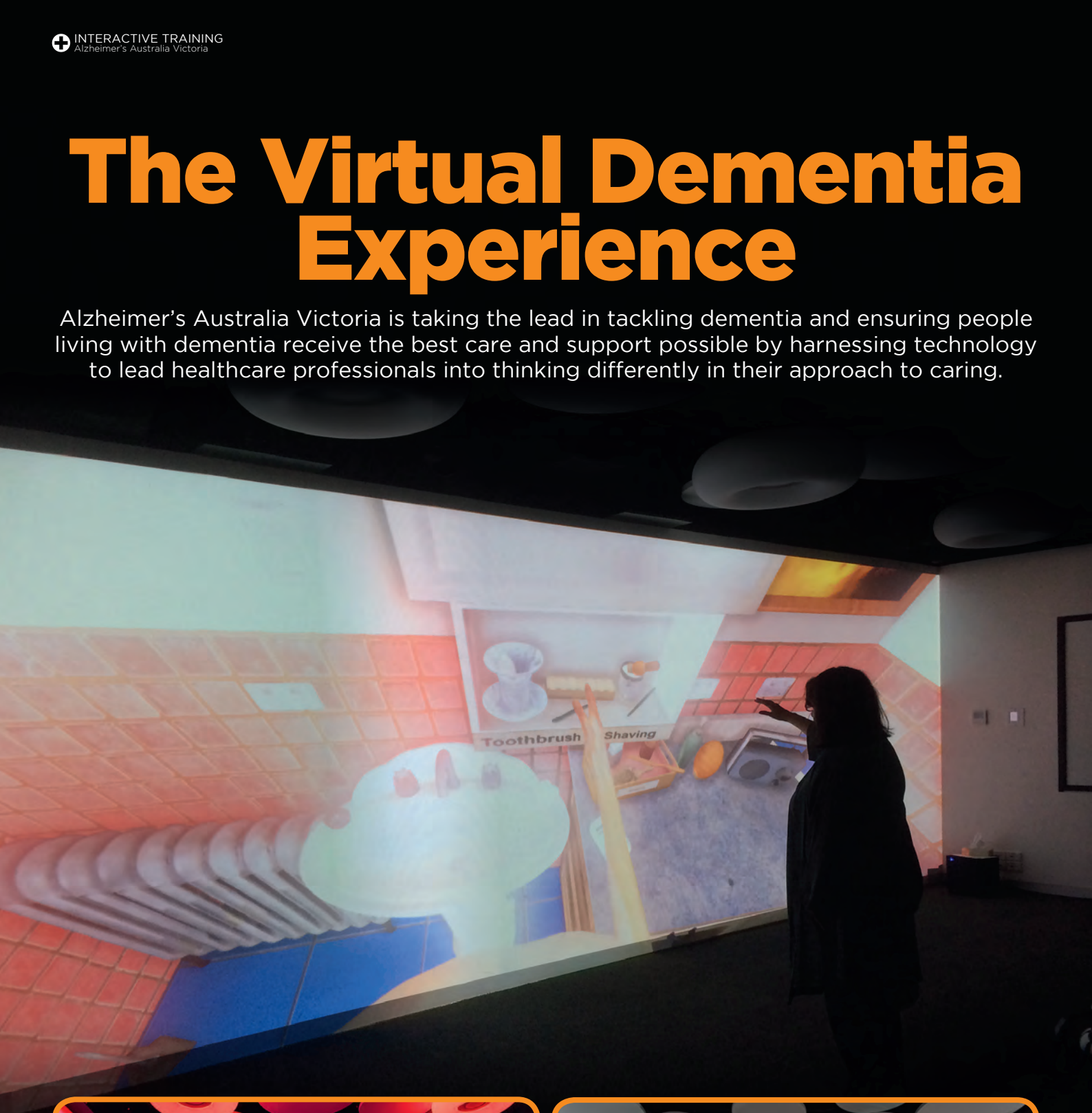
The Virtual Dementia Experience

Alzheimer's Australia Victoria is taking the lead in tackling dementia and ensuring people living with dementia receive the best care and support possible by harnessing technology to lead healthcare professionals into thinking differently in their approach to caring.



Participants in the Alzheimer's Australia Victoria Virtual Dementia Experience (VDE™) workshop

The Virtual Dementia Experience™ (VDE™) at the Perc Walkley Dementia Learning Centre uses multi-sensory stimulation and serious game technology to immerse users in the effects of aging and dementia, so that cognitively intact people can gain an appreciation of the issues confronting people with dementia.

The VDE™ is the first use of serious games in dementia care training anywhere in the world. The experience enables participants to understand the environmental elements that are friendly or hostile to a person with dementia by experiencing a home environment in the same way a person with dementia would. From the experience the participant gains an understanding of dementia friendly design principles and an insight into what it might be like to have dementia.

Alzheimer's Australia Vic is the peak body providing education, support, advocacy and information for Victorians living with dementia, their families and carers and professionals. Our role is to empower and enable people living with dementia, their families and carers.

We assist carers and families of people living with dementia to manage the daily challenges that dementia brings. We work with health and aged care providers to deliver evidence-based good practice in dementia care. We also educate the community about dementia and the benefits of a healthy lifestyle in helping to reduce the risk of dementia.

Our organisation was founded by and for carers, in response to public concern about the lack of information, resources and appropriate residential care for people with dementia. Each year, over 25,000 people access services through our counsellors, resource workers and educators.

The Virtual Dementia Experience™ (VDE™) is an initiative of Alzheimer's Australia Vic developed by Opaque Multimedia. The VDE™ uses multi-sensory stimulation and serious games technology to immerse users in the effects of aging and dementia, so that cognitively intact people can gain an appreciation of the issues confronting people with dementia.

The VDE™ combines a number of technologies to achieve complete immersion in the world of dementia for the user. The senses are occupied by the 10x2.5m projector wall, environment lighting that changes colour to match the wall and occupy the peripheral vision and a 7.1 surround sound system. The user interacts with the simulation through an X-Box Kinect sensor that allows the movements of their avatar in the environment to match their own. This makes user input as intuitive and naturalistic as possible, an important factor in engaging the audience.

The experience enables participants to understand environmental elements that are friendly or hostile to a person with dementia by experiencing a home environment in the same way a person with dementia would and provides a powerful demonstration of dementia friendly design principles and practices. The content of the simulation was created from the stories and perspectives of people living with dementia, their families and carers.

The experience is designed to provide participants with insights into what it is like to have dementia and thereby improve dementia care and dementia friendly environment design.

The VDE™ operates in three ways:

1. The VDE™ induces the experiences associated with dementia and aging in the participant through effects such as:
    - Modifying the participant's perceived visual acuity and perception
    - Modifying the participant's perceived hearing and ability to interpret or filter audio
    - Interfering with the participant's ability to control their avatar
    - Modifying the environment to represent common hallucinations and memory problems

"You think that you know, and that you understand and that you're doing a great job. But something as simple as watching that experience takes you back to 'you have no idea how somebody else is feeling', you're not living in their reality so you don't know."

2. The participant attempts to interact with, through a series of exemplary scenarios, an environment that is poorly designed and contains a range of potential hazards for a person with dementia
3. The participant then experiences the same scenarios with modifications to the environment to make it dementia-friendly.

This is followed by opportunities for debriefing and consolidation of ideas and skills through feedback, reflection, and the application of the ideas and skills to new situations.

As experiential learning is a process that is personal, and influences feelings and emotions as well as enhancing knowledge and skills, it is an ideal vehicle for teaching person-centred care.

Evaluation: Traditional dementia awareness and care education methods have not had the desired impact on dementia care, the VDE™ gives a more empathic understanding of dementia and associated conditions. This improved understanding results in changed perceptions and improved care practices.

Dr Wendy Doube, Dr Sunil Bhar and their team from Swinburne University of Technology were engaged to conduct an educational evaluation of the degree to which the VDE™ workshop meets its intended objectives, which are to primarily to promote the following in carers of people living with dementia:

1. Greater empathy with people living with dementia.
2. Greater understanding of ways in which the environmental design impacts on people living with dementia.
3. Greater insight into their own practice as carers.

The evaluation employed both quantitative and qualitative methods to compare the VDE training with equivalent classroom training in a pretest-posttest control group quasi-experimental design. Ninety-six employees from two major aged care facilities were assigned to either a VDE (n=47) or a classroom (n=49) training workshop. All participants completed self-report questionnaires administered immediately before and immediately following the training. In addition, seven participants in the VDE and six in the classroom training volunteered to be interviewed before and following the training. The evaluation confirmed that the VDE™ learning is significantly more likely than equivalent traditional classroom training to engender an empathic understanding of the thoughts and feelings of people with dementia.

The classroom training encourages recall of facts and concepts, whilst the VDE™ is more effective than the classroom training in applying those facts and concepts towards an understanding of care environments as experienced by people living with dementia.

The following interview comment from one of the participants in the evaluation suggests that the VDE™ achieves its aim in enhancing empathic understanding:

"You think that you know, and that you understand and that you're doing a great job. But something as simple as watching that experience takes you back to 'you have no idea how somebody else is feeling', you're not living in their reality so you don't know."

After 30 years of supporting people with dementia, their carers and families, this facility empowers our organisation to deliver on our purpose and showcase our important dementia friendly design messages throughout Victoria and indeed the world.

From Document Management To DICOM:
The Evolution Of Enterprise Content Management

Enterprise Content Management (ECM) started as a departmental document management solution in administrative and financial departments. What was initially referred to as "imaging and document management," ECM concentrated on scanning and electronically storing paper content to help departments reduce storage costs and recover valuable space. Over time, it grew to include workflows, business process management and case management capabilities that help to accelerate business processes, saving time and resources.

ECM has made tremendous strides in the past ten years, yet in many cases, it remains invisible to those who use it every day. Today's ECM solutions store both clinical content and a large proportion of administrative and financial content in electronic clinical repository systems making it the single most central content repository in a healthcare organisation.

However, it's still a familiar sight to see medical office staff hand a patient a clipboard of forms. It's not very common though for patients to receive a mobile tablet device that contains electronic versions of all of the relevant forms they need to review, complete and sign. Increasingly, these devices are able to deliver content that auto fills the forms with the patient information that's already on file, so patients do not have to input redundant information, making for a better experience. And, because ECM electronically captures the content, complete and accurate patient information is instantly available.

Patients today are able to benefit from clinical content repository systems which streamline the entire registration process as well as downstream processes, like billing. This clinical content strategy is essential to the health data continuum, providing healthcare organisations with the roadmap to improved patient care.

Beyond administrative data, ECM technology has grown to include clinical content like lab results, wound care photos, electrocardiograms and more. By integrating this content into the clinical content repository system, clinicians can quickly and easily access it without switching between applications. For administrative departments, integrating ECM with enterprise resource planning (ERP) systems allows staff to remain in the ERP system while accessing related information to complete tasks. As the volume of content continues to grow and the need for a central repository becomes increasingly more important, integrations with other core business systems continue to be a cornerstone of ECM solutions to support accessibility, security and patient care.

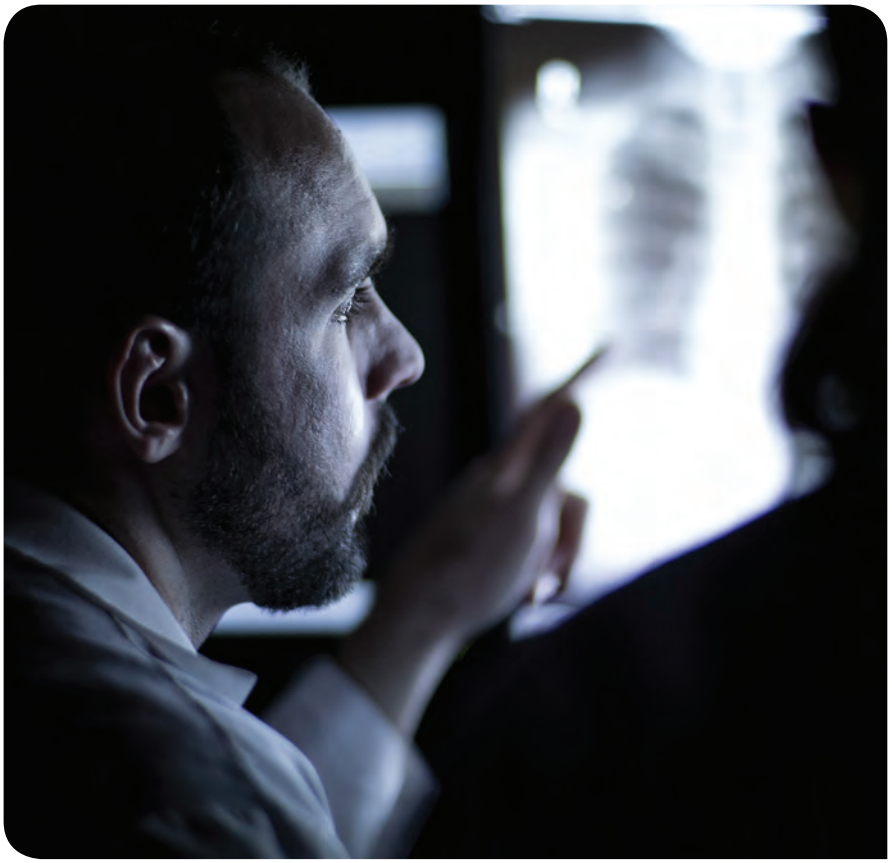
Today, ECM continues to evolve. Among the newest developments is the ability to capture and store Digital Imaging and Communications in Medicine (DICOM) content, like X-rays, MRIs and CT scans. ECM's capability to ingest and manage these images rounds out the solution's effectiveness to provide healthcare organisations with a comprehensive clinical content strategy.

Serving as an enterprise-wide platform, ECM connects numerous IT systems and departments across the organisation. While this true enterprise solution captures, stores and automates processes across financial, administrative and clinical departments, it is ECM's health information exchange capability that users are finding most exciting.

Now, when there is a transition of care, patient content is simultaneously sent to the new organisation electronically. Transporting records no longer falls to the patient and clinicians no longer need to start from scratch to manually construct a collection of patient data. This clinical content strategy is essential to the health data continuum, providing healthcare organisations with the roadmap to improved patient care.

ECM has come a long way from its roots in document management. The scan-store-retrieve model, which helped eliminate file cabinets and repurpose physical space, has grown into a core, enterprise solution. Creating more complete patient records, ECM serves as a single point of access for clinical content, ensuring the right providers have the right information, at the right time and in the right context, resulting in more effective patient care.

ECM also creates more complete administrative records, enabling providers to take advantage of case and business process management tools to become more efficient and lower costs.



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FEATURE STORY

Caring for Patients, Caring for Yourself: Nutrition and Physical Health

Working in a demanding job with factors such as stress, shift work, emotional attachment and poor resourcing can take a toll on clinicians, who turn to smoking, caffeine, sugar and other substances to ease the tension and help them get through the day. Accredited Practising Dietitian Janice Plain reminds clinicians how diet can contribute to good mental health.

With one in five Australian adults experiencing a mental health disorder in a given year[1] it is not unlikely that a number of clinicians are taking medication to help manage their depression, anxiety, bipolar or other mood disorder under the guidance of their own health professional. As any health professional will know, medication alone is not enough to make an ill person well – lifestyle support is needed, and none is more important than a healthy diet.

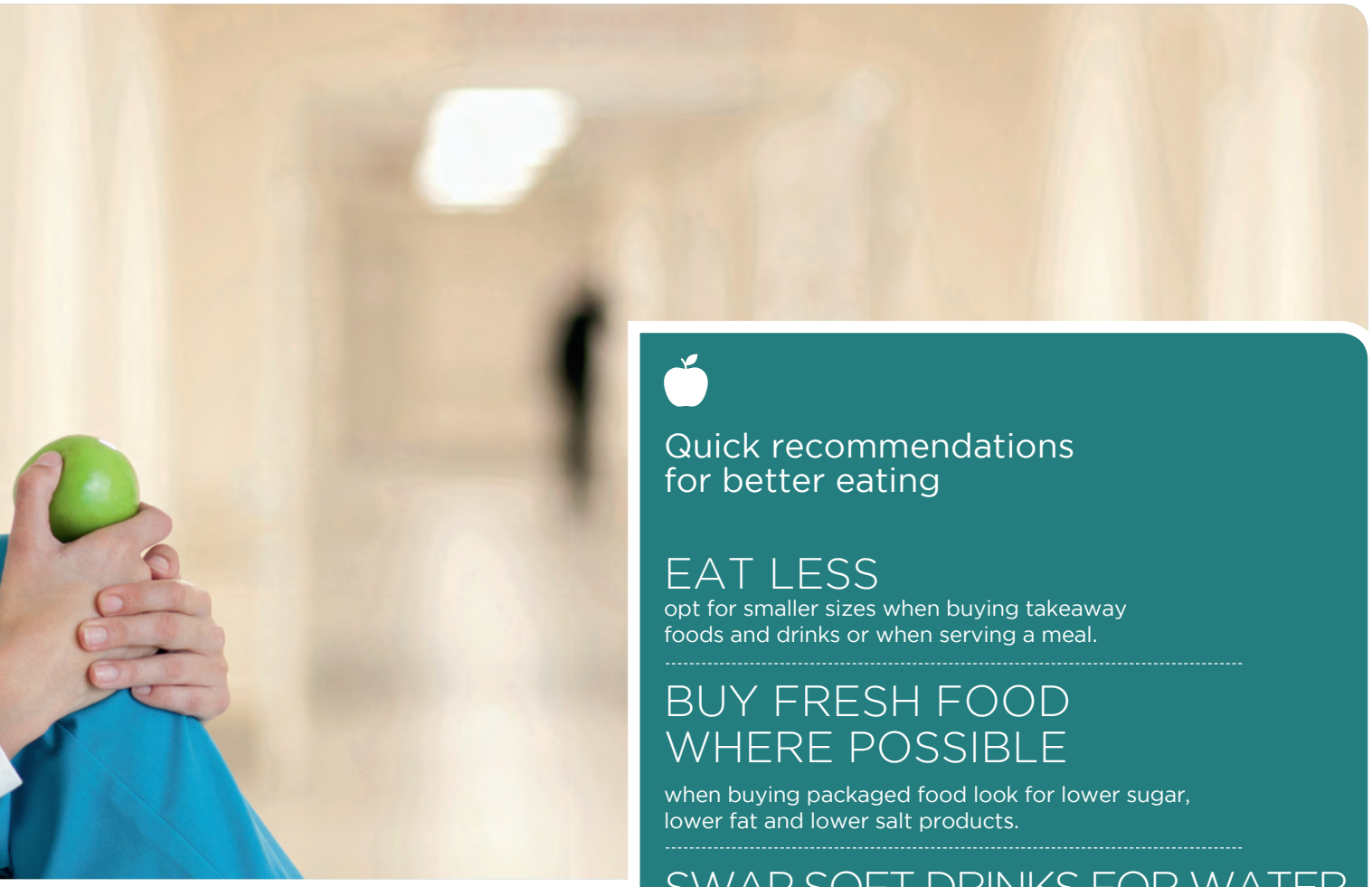
Obesity, diabetes and metabolic syndrome are two to three times more common in people with mental illness, particularly in those with schizophrenia. Minimising the impact of diet on obesity is important, as unfortunately obesity and its associated co-morbidities are also side effects of some psychotropic medications. Some psychotropic medications stimulate the appetite and some antipsychotics induce weight gain and metabolic syndrome. The conditions for which second generation antipsychotics are prescribed, often require prolonged treatment. The metabolic side effects of these medications can have significant long-term health consequences that require management.

From a practical perspective, excess weight gain can affect body image, mobility, physical health and quality of life, which can lead to non-compliance to medication. Together these factors can exacerbate both mental illness and metabolic disturbances. In light of these factors and in support of practice guidelines for the management of obesity, diabetes and cardiovascular disease, it is important to incorporate nutrition messaging into treatment as early as possible.

Those suffering mental health conditions may present with the medical conditions mentioned above, and quite likely with some of these compounding issues:

- Gaining weight quickly – including drinking excess cola, coffee or energy drinks and eating a lot of takeaway.
- Losing weight very quickly – with not eating much at all, limited access to food and finances to purchase food.
- Limited food storage and preparation facilities and knowledge.

The Queensland government website houses Nutrition Education Materials Online (NEMO) including nutrition support action plans that provide action-based resources to guide the care and advice you provide to someone with mental illness. These resources are useful as a first intervention, but what if



you or your patient needs more support?

Accredited Practising Dietitians (APDs) can provide expert nutrition advice and additional focused support for patients with mental illness. APDs are skilled in counselling and helping patients change and maintain healthier habits. Whether issues arise from a lack of nutrition knowledge, poor food preparation skills, difficulties accessing healthy foods, low social support or other barriers, these considerations are incorporated into practical advice. For example, those with schizophrenia or bipolar disorder can experience apathy and depression and limited social interaction. These factors and other challenges contribute to lower levels of physical activity and poor food choices, such as low fruit and vegetable intake and high alcohol intake. With this in mind, APDs keep messages simple and work with patients to set realistic goals.

Nutrition and physical health in those with mental illness can be complex. Interactions between co-morbidities, side effects of medications, and the mental illness are the tip of the iceberg. Poor nutrition is a modifiable risk factor that affects patients' physical and mental health, and makes a noticeable difference in quality of life. It is critical to work together as a multidisciplinary team to improve patients' nutrition status and minimise the ongoing consequences of poor nutrition. Early identification and ongoing support by clinicians in partnership with APDs can lead to better physical and mental health outcomes for patients.

Health professionals have the training and experience to care for others with ill health, and to intervene before a condition worsens. But sometimes they neglect to care for themselves until it is too late. Don't let it become too late for you.

Quick recommendations for better eating

EAT LESS
opt for smaller sizes when buying takeaway foods and drinks or when serving a meal.

BUY FRESH FOOD WHERE POSSIBLE
when buying packaged food look for lower sugar, lower fat and lower salt products.

SWAP SOFT DRINKS FOR WATER
(preferably), sparkling mineral water or lower energy versions

BUY HEALTHIER OPTIONS
focus on what you buy at the supermarket or take away shop - it's easier saying 'yes' once in the shops than 'no' 100 times at the pantry.

EAT MINDFULLY
think about and be aware of what and how much you eat.

MOVE MORE
look for enjoyable opportunities for exercise and incidental activity.

For individualised dietetic advice for your patients, Find an APD on the DAA website and select 'Mental health' under 'Area of Practice'.

Janice Plain APD
Convenor of the Dietitians Association of Australia Mental Health Interest Group (MHIG)

Janice Plain APD is the convenor of the Dietitians Association of Australia Mental Health Interest Group (MHIG) and represents contributing authors from this group.

References

[1] Black Dog Institute (2012) Facts and Figures about mental health and mood disorders.

Good mental health from day one

The evidence is clear: good mental health begins at birth.

Edith Cowan University has established a course specialising in infant mental health - the first of its kind in WA.

From 2016 a Master of Infant Mental Health course will be offered focussing on the emotional development of young children and their families.

Course coordinator Professor Lynn Priddis said the one year course had been developed to suit professionals already working with infants, young children and their families across many service areas.

"The course is ideally suited to people working in the fields of early childhood education, nursing, occupational therapy, paediatrics, physiotherapy, psychiatry, psychology, social work and speech pathology," she said.

"There is a global trend towards recognising how important infant mental health is to wellbeing later in life. The World Bank said in 2013 that a failure to invest in early childhood development is costly to both individuals and society.

"This has been recognised by the WA Government's Mental Health Commission who supported the launch of workforce competency guidelines earlier this year. The guidelines recommend infant mental health training be provided to everyone who works with young children and their families, including early learning workers, nurses, teachers and social workers."

By the time children reach school age and enter the education system they can already be lagging far behind their peers, according to Professor Priddis.

"The WA Education Department has recognised this by establishing Child and Parent Centres at 16 schools to work with parents and their children from birth to the age of four," she said.

A key element of the Master of Infant Mental Health will focus on helping parents foster a secure and attuned emotional bond with their babies and it will sit alongside the new competency guidelines providing a clear up to date and evidence based training path for workers.

"The relationship a child develops with their parents forms the foundation of all future relationships," Professor Priddis said.

"If we can support and nurture this relationship children are more likely to develop stable, positive relationships as adults. An example of this support is helping new mothers who may be having trouble feeding their babies or getting them to sleep or new fathers who are unsure how to best help their families.

"Being a new parent can be a stressful time, but if we can help by providing evidence based advice about how best to navigate those early years we can hopefully alleviate some of this stress, which will benefit both parents and children.

"This course will provide you with the skills and confidence to help families through this developmentally important phase."

Applications for the Master of Infant Mental Health are now open.

MAKING A DIFFERENCE FROM DAY ONE

THAT'S HOW UNIVERSITY SHOULD BE

ECU's Master of Infant Mental Health is the only course of its type in WA. It seeks to further the healthy social and emotional development of young children with a focus on promotion, prevention, intervention, treatment and policy.

The course is suited to working professionals from a diverse range of backgrounds, such as early childhood education, nursing, occupational therapy, paediatrics, physiotherapy, psychiatry, psychology, social work and speech pathology. Learn skills that link theory with practice as you build your competency in the perinatal and infant mental health fields, and enhance your existing qualifications.

You'll graduate with the knowledge and skills needed to make a difference to young lives.

APPLY FOR THE MASTER OF INFANT MENTAL HEALTH

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THE ONE HUNDRED UNDER FIFTY

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AUSTRALIA ECU EDITH COWAN UNIVERSITY

RMIT University is a global university of technology and design and a registered training organisation, making it Australia's largest tertiary institution.

The University has made, and continues to make, a significant contribution to the health and community services sectors and is a longstanding and internationally recognised provider of education for key health professions in the fields of nursing, aged care, home and community care, pharmacy, medical radiations, psychology, social work, and Chinese medicine, among others.

Professional Development Courses RMIT University

Take your professional development to the next level with one of our 2016 courses.

Comprehensive Health Assessment of the Older Person (CHA)

This four day course takes a holistic approach to the care of a patient, looking beyond the obvious to examine what may be luring underneath. CHA equips health care workers with the knowledge needed to provide the complete picture of factors impacting a patient.

The course is designed for RN and EN nurses and has been endorsed by the Australian College of Nursing and is accredited for 24 CPD hours.

Courses are scheduled for May and September, 2016. Registration and more details:

http://shortcourses.rmit.edu.au/course_page.php?course=S155114

Interpret and apply medical terminology appropriately

Learn medical terminology and gain an understanding of medical problems, while learning how to communicate confidently with a range of medical professionals.

This course is delivered online in a virtual classroom setting. Participants can communicate with the lecturer and peers in real time via audio, text messaging, and drawing on the whiteboard to encourage collaborative critical thinking and higher order learning.

Participants who successful complete the assessment activities will be issued with a Statement of Attainment.

Courses are scheduled for March and August, 2016.Registration and more details:

http://www.shortcourses.rmit.edu.au/course_page.php?course=S155004

Venepuncture training

Develop an understanding and skills to perform blood collection from a vein. Venepuncture is one of the most routinely performed invasive procedures for the purpose of intravenous therapy or for blood sampling of venous blood. This practical course is delivered in a small group environment.

On completion of this course participants will receive a Certificate of Attendance.

Courses are scheduled for January and February, 2016.Registration and more details:

http://www.shortcourses.rmit.edu.au/course_page.php?course=S155103

OHS for Managers and Supervisors

This two day course covers the skills and knowledge required by managers or those in a supervisory role to assist with providing the workforce with advice about the legislative duties, rights and obligations of individuals and parties prescribed in Work Health and Safety (WHS) legislation.

This course will assist you to determine the legal framework for WHS and the duties, rights and obligations necessary to ensure compliance in the workplace.

Upon successful completion of the class assessments, participants will receive a Statement of Attainment.

The course is scheduled for May, 2016. Registration and more details:

http://www.shortcourses.rmit.edu.au/course_page.php?course=S155121

Provide First Aid (HLTAID003)

This two day course is designed to provide participants with sound first aid skills which can be applied at home, work or any environment that requires a first aid response. Participants are provided with a first aid manual and assessed using a range of methods. Classroom activities include theory and practical tasks involving simulated scenarios.

This course applies to those with no knowledge of first aid training or those with a certificate beyond the expiry date.

On successful completion of the course, participants will be issued with a Statement of Attainment.

The course is scheduled for February, 2016. Registration and more details:

http://www.shortcourses.rmit.edu.au/course_page.php?course=S155122

Provide Advanced First Aid (HLTAID006)

The course is designed to develop the skills and knowledge required to provide an advanced first aid response, life support and management of the situation in a range of scenarios including home, workplace or community settings, until the arrival of medical or other assistance.

On successful completion of the course, participants will be issued with a Statement of Attainment.

The course is scheduled for April, 2016. Registration and more details:

http://www.shortcourses.rmit.edu.au/course_page.php?course=S155123

RMIT UNIVERSITY

» For more information visit **shortcourses.rmit.edu.au**

TAKEO_2 The Innovative Solution for enhanced Patient Safety and Cost Savings in Healthcare Facilities

Air Liquide *Healthcare* is proud to introduce TAKEO_2™, one of the world's first digital integrated cylinders. Australia is one of the first countries outside of Europe to implement this new technology.

About Air Liquide *Healthcare*

Air Liquide *Healthcare* is a world leader in medical gases, home healthcare, hygiene products and healthcare specialty ingredients. Air Liquide *Healthcare* aims to provide customers in the continuum of care from hospital to home with medical products, specialty ingredients and services that contribute to protecting vulnerable lives.

We serve over 7,500 hospitals and 1,000,000 patients throughout the world, supplying medical gases, hygiene products and equipment to hospital customers, and providing Home Healthcare services to patients in the community.

TAKEO_2™ is a major innovation in the Medical Oxygen field. This new generation cylinder combines a built in pressure regulator, an ergonomic cap and a patented digital gauge, to provide healthcare professionals with the industry's safest and most cost effective medical oxygen delivery system.

This new technology allows caregivers to better manage the administration of medical oxygen, by viewing the remaining time and volume available at a glance.

What does TAKEO_2™ mean for me?

This solution provides major benefits to healthcare providers:

Greater patient safety by reducing the risk of oxygen supply interruption:

- Staff can safely plan oxygen dependent transfers having immediate and accurate cylinders duration time.
- The permanent display of the remaining time and available volume as well as the safety alerts indicate when the cylinder needs to be replaced
- The integrated valve with built in pressure regulator provides a higher level of safety as it reduces the possibility of adiabatic compression associated with detachable pressure regulators.

Improved ease of use and faster oxygen set ups:

- With an ergonomic cap, a comfortable handle and a straightforward flow selector, patient care is significantly facilitated.
- The time-related data provides an unprecedented comfort level to caregivers who can better focus on their primary responsibility, the patient.

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

- With direct and exact information on remaining time, staff members are more confident to use most of the cylinder contents as they have a better control of the autonomy of the cylinder.
- Featuring an integrated valve, **TAKEO_2™** does not require a separate regulator to be attached. This eliminates the need to purchase regulators for medical oxygen cylinders, or to manage their maintenance and repair.

The use of the integrated **TAKEO_2™** cylinders reduces redundant and inefficient activities, enables caregivers to reallocate their time on the patients and delivers significant cost savings for the healthcare facilities.

It was demonstrated with several case studies in Europe and Canada that hospitals were returning about 50% of their medical oxygen cylinders for refill (considered as empty) when cylinders were actually over 1/4 full. With the new digital integrated cylinders, over 90% of the cylinders were returned completely empty by the hospital. As a focus on lean management and waste reduction practices in the healthcare sector continues, **TAKEO_2™** is the innovative solution for cost savings.

How does it work?

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

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

Remaining time displayed in hours:minutes

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»
For more information, please contact **1300 360 202** or visit **www.airliquidehealthcare.com.au**

FEATURE STORY

Finding purpose in your work

After founding RedBalloon in 2001, Naomi Simson has become one of Australia's biggest success stories. Naomi's inspiring keynote presentation at the LASA 2015 Congress 'A Life Filled with Passion and Purpose' provided delegates with tips on making powerful choices to ultimately fulfil their true purpose. We caught up with her afterward for a chat on applying this advice to a career in the health industry.

How can I start living a meaningful life now?

"I would really encourage readers to pick themselves up a copy of my book 'Live What You Love' - take the time to contemplate the words, make them your own and do the exercises I have included. Your experience of your own life will shift. What you will discover is dependent on how honest you are with yourself in your answers and considerations of the questions I pose. For many, the book has been a wonderful step on their journey to continue to live a meaningful life." Naomi Simson, Founding Director of RedBalloon, 'Shark' on Channel 10's Shark Tank, Author, entrepreneur, speaker.

AHHB: Could you please give us a brief overview of your speech at LASA Congress 2015 on living your life with purpose and a sense of accomplishment?

NS: Often people get passion and purpose confused - they are not the same thing. You might be passionate about the love of your life or great art, but that is not your life's work. What I shared with the audience was my belief that people can wake up every day inspired to go to work and return home at the end of the day feeling fulfilled by the work they do and knowing that they have contributed to something greater than themselves which has particular relevance in this industry. But they are only empowered to feel these things if they are living their life with purpose and have found their purpose. For many in the room, this resonated very strongly I am sure.

AHHB: Does 'do what you love' have a literal interpretation for you, or is it a principle that needs to be applied with practicality in mind?

NS: My mother famously told me in so many words that my love for art would not equal a life with millions of dollars so she encouraged me to go to university and enjoy my love for art on the side. When you enjoy what you do, you really do a better job - one might enjoy singing on the streets and busking and they might do a brilliant job at it, they go home feeling fulfilled - but of course we all have ends to meet. There is an element of practicality involved, but it is being mindful of your passion; your compelling enthusiasm or a desire for something and seeing how your passion and life situation can work in harmony.

AHHB: What is your advice for someone who has identified their passions, chosen a direction they thought would make them happy, and discovered it is not what they expected?

NS: I get contacted numerous times a day by people who have been inspired by my book and have quit their jobs to fulfil their lifelong passion of starting their own business for example. But they have hit a stonewall when they realise how much work is involved in doing all of this, and have been challenged when they realise they don't have the security blanket of the monthly salary hitting their bank accounts. They begin to question their passion when the dream doesn't work out as they intended. I remember when I studied marketing at university and I was so incredibly excited and motivated to attend all my lectures and learn everything, but I was left feeling disappointed and underwhelmed by the curriculum - I too, began to question the direction I was taking. But I stuck it out and went out into the working world, and that was when I gained the experience and learnings I had been craving.

"if there is not a culture that thrives on engaging, recognising and rewarding employees for their good work that aligns with the organisation's' values then any nurturing to lead meaningful lives is not possible."

AHHB: Passion waxes and wanes and interests change. Do you recommend a direction check from time to time? And how should people do this?

NS: I tell people often that I want to empower them through my writing and my experiences to make powerful choices about their own lives and living with passion every day. But passion alone is not the recipe for success. In life there is failure and without it we don't know success. Failure is not the end of the world or the road, it just means the course of action has ceased and you are challenged to devise your next move. These are the direction checks or obstacles we face in life, but if you are true to your passion and you are focused on your purpose you will get through it.

AHHB: There are times when things get tough on the personal front and it can affect our work performance. The importance of self-care is an all-too-common refrain, but it can bring on feelings of guilt in some people to step back from their responsibilities to focus on themselves. Any advice?

NS: I know well the feeling many entrepreneurs share which is a view of "holidays? What holidays? Surely there is an opportunity to research, a meeting to be had, papers to be reviewed, blogs to write." I also know why I started RedBalloon and it was because I thought I would have more time with my two young children and adapt to this cruel concept we know as 'work-life balance' - which might I add is a croc. It is a label we attach to ourselves to harshly judge us for our actions and it is not helpful. Everyone knows their limits - for some the boundaries are pushed more than for others. But I do look after myself - yoga helps; clean and organic eating; walking everywhere I go. It is different for everyone but I will say that being mindful of your wellness is critical to your own success.

AHHB: Would you share your philosophy on sacrifice and accomplishment?

NS: One of the quotes I share in my book from JFK is this: *"We choose to go to the Moon in this decade and do other things, not because they are easy, but because they are hard."*

I remember way back in 2001 when I decided to launch RedBalloon it took eight months to prepare. On launch date nothing happened. I was so naive! I somehow thought that if I built a website the customers would simply buy from it. I had spent our family savings on it and I had no money left to promote it. The agony of waiting for the first sale was excruciating - everyday questioning myself and my passion for creating great experiences to be shared. It took two months and four days for the first sale to come through and I will never forget the sense of relief and accomplishment I felt.

Nothing in this life is meant to be easy. Humans were put on this world to figure that out and I am so proud of what RedBalloon has become - launching their new website last week which is light years better than what launched all those years ago!

AHHB: Many healthcare workers enter the field out of the desire to help people, but it can become an emotionally draining career. How can they maintain the passion?

NS: I could not be more in awe of the work that healthcare workers do every single day - the difference they make to our loved ones lives (and eventually our own) is incredible. The care and respect they give is endless. But I know many stories of exhaustion, burnout, illness - where their reality is too upsetting and draining to go on. I do not know what this must feel like but what I will say about passion is remembering why they embarked on this career choice, and holding their purpose close at hand each and every day. Knowing how much their life's work contributes to another's should be enough for them to keep being reminded of their passion and purpose every single day.

AHHB: How can managers and bosses nurture their employees desires to lead meaningful lives?

NS: Having an employee centred culture is key here - if there is not a culture that thrives on engaging, recognising and rewarding employees for their good work that aligns with the organisation's' values then any nurturing to lead meaningful lives is not possible. That is why I invested in redii.com - a software tool designed at aligning teams, encouraging peer-to-peer recognitions and further fostering a culture where managers can see the great work their team members are doing and recognise them for doing so.

Improving Patient Diagnosis through quality Ultrasound Training

Destination Sydney

According to growing evidence that the timeliness of patient and emergency care is associated with quality of care, there is internal and external motivation for relevant departments to continually improve their ultrasound diagnostic and imaging skills.

For emergency physicians, nurses and other practitioners, emergency and ultrasound training is essential and one of the challenges that remain is to select a training provider who can provide didactic education, critical thinking exercises, and opportunities to assimilate concepts and apply them in real-world scenarios that assess their understanding.

As an outcome focused training organisation, the Australian School of Medical Imaging (ASMI) is based in Sydney and has been providing quality ultrasound training to the Australian and New Zealand healthcare sectors for nearly 10 years.

Partnering with those at the coal face

In December 2013, ASMI partnered with Dr Adrian Goudie of Ultrasound Village and The Sono Cave to deliver high quality emergency and critical care ultrasound seminars on the East Coast that are not only CCPU approved by ASUM, but most importantly, are incredibly relevant to the busy Emergency Department.

ASMI continues to provide their innovative courses that reflect new policies and current best practices to ensure that healthcare professionals have the most up to date knowledge and skills to deliver the best evidence-based care in the interest of patient safety.

We feel that we have developed the finest teaching faculty available in emergency ultrasound. Our staff has held numerous national positions in the ultrasound community and continue to be a vital part of the development and implementation of this technology. Our world-class Faculty members have been hand-picked for their dedication, expertise and leading edge knowledge in their particular field of medical imaging and allied health and are able to transfer their exceptional depth of knowledge and practical skills to all seminar registrants.

"I found the ASMI Emergency Physician's Ultrasound Course to be very enlightening. I particularly appreciated being taught by experts, including an ultrasound engineer, an emergency physician and a senior sonographer. The practical approach gave me new skills to match the theoretical knowledge."

Dr J W – Emergency Department Director

Decades of collective experience have equipped us with proven best practices for amplifying the ultrasound capabilities within your hospital by enabling the seminar attendees to perform at their best. The number of physicians, sonographers, allied health professionals and radiologists that feel confident in partnering with the Australian School of Medical Imaging is overwhelming and of course, complimentary.

Even if ultrasound may be new to you, perhaps you can take heart knowing ASMI also delivers seminars for a beginner that are also outcome focused as evidenced by the following testimony.

"I came with a fear of the unknown – the ultrasound – the grey and white images had never made sense to me, but after the well organized and individualized attention at ASMI, I left with an understanding not only of the machine but also the ability to capture meaningful imagines and to understand what I was looking at. I didn't need an emergency consultant or radiologist, I needed a very experienced ultrasonographer to guide me through the tricks of the trade which can only be enhanced with practice and that I think was and is the reason I left satisfied with my ability."

Dr V R M – Emergency Fellow

Key Point

ASMI is the only ultrasound training organisation in Australia who is in academic partnerships with Monash University in Melbourne, Charles Sturt University and ASUM.

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EMERGENCY ULTRASOUND | 2 DAYS

- AAA
- EFAST
- DVT
- VASCULAR ACCESS
- CCPU & CAHPU

2016 DATES: FEB 4; MAY 19; AUG 18; NOV 10

ECHO IN LIFE SUPPORT | 1 DAY

- BELS
- ANATOMY
- ACLS INTEGRATION
- LV & RV FUNCTION ASSESSMENT
- CCPU & CAHPU

2016 DATES: FEB 6; MAY 21; AUG 20; NOV 12

GYNAE & EARLY PREGNANCY | 2 DAYS

- EPTOPIC
- VIABILITY OF FETUS
- PELVIC ANATOMY
- TRANS ABDO/VAGINAL
- CCPU & CAHPU

2016 DATES: MAR 12; AUG 6

MONITORING OF FETUS | 2 DAYS

- 2nd & 3rd TRIMESTERS
- FETAL POSITION
- PLACENTA POSITION
- FETAL WELLBEING
- CCPU & CAHPU

2016 DATES: MAR 19; AUG 13

BREAST ULTRASOUND & INTERVENTION | 2 DAYS

- DIAGNOSTIC AND INTERVENTIONAL
- SURGEON FOCUS
- BIRADS
- NEEDLE GUIDANCE TECHNIQUES
- CCPU

2016 DATES: APR 9; SEP 17

MSK FOR POINT OF CARE | 2 DAYS

- INTRODUCTION TO SOFT TISSUE
- MUSCLES, LIGAMENTS & TENDONS
- NEEDLE GUIDANCE/INTERVENTION
- UPPER AND LOWER LIMBS
- CCPU & CAHPU

2016 DATES: FEB 13; NOV 12

BRACHYTHERAPY ULTRASOUND | 2 DAYS

- PROSTATE
- CERVIX
- BREAST
- NECK
- CCPU & CAHPU

2016 DATES: JUN 4; OCT 22

FOLLICLE TRACKING | 2 DAYS

- INTRO TO FOLLICLE TRACKING
- SCAN, COUNT & DOCUMENT
- 3D IMAGING
- TRANS ABDO/VAGINAL
- CCPU & CAHPU

2016 DATES: MAR 5; OCT 8

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- ABDOMEN (5 DAYS)
- KICK START WORKSHOP
- NECK ULTRASOUND (1 DAY)
- MSK FOR ALLIED HEALTH
- VASCULAR WORKSHOPS

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MSK - SPASTICITY MANAGEMENT | 2 DAYS

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- BOTULINUM TOXIN INJECTIONS
- CONSIDERED NEEDLE PATHWAYS
- UPPER LIMBS AND LOWER LIMBS
- NEUROVASCULAR AVOIDANCE

2016 DATES: MAY 14; ON DEMAND

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National Nursing Forum shines the light on leadership

More than 250 nurse leaders from around the nation gathered in Brisbane for the National Nursing Forum, the signature annual event held by the Australian College of Nursing (ACN).

This year's theme, "advancing nurse leadership", was examined in a comprehensive program of workshops and presentations by more than 60 local and international speakers. They shared their insights about critical issues facing the nursing profession, including the need for strong, confident and resilient nurse leaders within the healthcare system.

Governments around the world are facing the harsh reality of the rising cost of health care provision to an ageing population and a population with a rising incidence of chronic disease. In Australia, budget pressures mean that the Federal and State Governments are seeking ways to contain health expenditure. Kathleen McLaughlin, acting CEO of the ACN, told the Forum delegates that the economic pressure of providing healthcare,

combined with the need to achieve cost efficiencies without sacrificing patient safety and satisfaction, means there are competing priorities that nurses confront and respond to on a daily basis.

"Nurses are uniquely placed to provide advice, propose reforms and lead the way in cost management without reducing the quality of care provided. A nurse leader can have a positive effect on improving patient care and optimising outcomes by leading the policy, cultural, clinical and organisational change required to deliver quality improvements," said Ms McLaughlin.

Evidence from around the world shows that the role of a nurse leader must not be underestimated. A nurse with leadership skills is critical to advancing the nursing profession and developing a healthy work environment and culture. Another important aspect of nurse leadership is its ability to give nurses an essential voice in the development of patient care environments. With nurses consistently rated as the most trusted profession, they are uniquely placed to effect transformational change at every level by working collaboratively with all health professionals.

"Being a nurse leader is more than working in a managerial position. A nurse leader is a change maker. ACN wants to ensure that nurses have access to the latest information and networking, mentoring and educational opportunities to develop their leadership skills and, by doing so, lead the improvement of the health of all Australians," Ms McLaughlin continued.

According to the National Nursing Forum's international keynote speaker, Professor Anne Marie Rafferty - an expert on health service reform in the United Kingdom - nurses as leaders must not only do things right, they must also do the right things to achieve sustainable change in policy, systems, workplace culture and workforce retention.

"In a highly pressurised health system, the need for nurse leaders is huge. Strong leadership by nurses plays a pivotal role in a system that makes enormous demands upon practitioners. The skills and expertise that nurses have means they are in a position to lead change in health care systems, be the designers of better care models and processes, as well as deliver better health outcomes for patients and their families," stated Professor Rafferty.

In convening an annual National Nursing Forum, the Australian College of Nursing's goal is to raise the profile of the importance of developing and enhancing leadership skills in nurses at all stages of their career – from the nursing student and graduate nurse through to the experienced nurse in a senior executive position. ACN believes that every nurse can have a positive impact on patient safety and health care outcomes, not only through the delivery of front line services but also in shaping and leading the development of new models of care needed to meet future healthcare demands.

"With nurses consistently rated as the most trusted profession, they are uniquely placed to effect transformational change at every level by working collaboratively with all health professionals".

ACN, an organisation not afraid to intelligently challenge industry issues affecting the nursing profession or Australia's healthcare, is a well-connected and educated national body that drives change with people of influence to enhance the delivery of health services to the Australian community. ACN advances the skills and expertise of nurses to provide leadership in their contribution to the policy, practice and delivery of health care.

A membership organisation with members in all states and territories, healthcare settings and nursing specialities, ACN's membership includes many nurses in roles of influence, including senior nurses, organisational leaders, academics and researchers.

ACN

Australian College of Nursing

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HLT61107 Advanced Diploma of Nursing (Enrolled/Division 2 nurse)

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Next intake: January 2016

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Access Concerns as Drugs Delisted

Joe DeMarte is the newly elected President of the Pharmaceutical Society of Australia. He has concerns over the new consumer restrictions on pharmaceutical scheduling.

The PBS Access and Sustainability Package, of which 6CPA is a part, has now been passed by the Government and is estimated to achieve PBS savings of $6.6 billion over the five years.

One of the measures incorporated into the PBS Access and Sustainability Package is the removal of some low-cost, over-the-counter medicines from the PBS.

Consumers will instead access these medicines from pharmacies and supermarkets, at notionally cheaper prices with the measure expected to save $500 million over five years.

In April, the PBAC recommendation included that "products with an ex-manufacturer price below the PBS Concessional co-payment should be delisted from the PBS" because PBAC considered that "access to these products would be unaffected by the removal of PBS subsidy".

There are reportedly 352 'candidate' items of which 47 were on the list for consideration by the PBAC in July.

PSA appreciates that the determination of delisting criteria is being undertaken with the best advice and transparent processes, however we believe that broader consultation of stakeholder views should have been forthcoming.

"Access" is certainly not the only consideration here and PSA has raised concerns about the delisting measures by using paracetamol, an inexpensive and widely available OTC pain medicine, as an example.

Paracetamol - when prescribed on the PBS for osteoarthritis - is frontline therapy for 1.9 million Australians suffering with this condition.

When paracetamol is delisted, these consumers will reach the Safety Net later and experience greater out-of-pocket costs as paracetamol will no longer contribute to reaching the Safety Net.

To access the dose required for regular use in osteoarthritis from a supermarket, consumers would need to purchase multiple packets and take more tablets each day.

Even from a cost perspective alone these consumers would appear to be worse off, but of additional concern is that supermarket purchases take the GP and pharmacists out of the loop, fragment treatment and affect the quality use of medicines for many of these patients.

Paracetamol will no longer be recorded in a patient's dispensing history and so pharmacists will no longer be able to effectively monitor compliance, check dosage or check for doubling up of paracetamol containing products that may have been inadvertently prescribed.

None of the above data, which would normally have been recorded during the process of dispensing, will be recorded anywhere and doctors will not be able to liaise with pharmacists to in order to access it if needed when reviewing a patient's care.

Instead they will need to rely on the patient's own assessment of their drug usage and compliance, and we all know that this is often an unreliable reference point.

Paracetamol was previously delisted from the PBS in 1986, and unfortunately we do not appear to have learned from this previous delisting, which was reversed after only 12 months due to unexpected problems arising from the move.

PSA also has significant concerns with the implementation date for any resulting changes being scheduled for 1 January 2016.

These patients are mostly concession-card holders and patients with chronic conditions. A longer transition time needs to be considered so that people can organise their medical appointments and have their medicine needs re-assessed and/or alternatives considered. Making dose adjustments or understanding changes to their medication management plan may also take time.

Community pharmacists know from previous experience that significant changes to PBS rules creates a number of problems for patients and carers: confusion ('I never had to pay for these medicines before'), inconvenience ("the clinic is not open or my own doctor is not available") and distress ("I am away on holidays and need my medicines').

Joe DeMarte
President of the Pharmaceutical Society of Australia

A lead-up period of five months (at best) is far from adequate.

Our preference, and one we will continue to advocate for, is a commencement date of 1 July 2016.

As an aside and somewhat ironically, the National Return and Disposal of Unwanted Medicines (NatRUM) program recently reported that paracetamol was the eighth most commonly discarded medicine in Australia.

Surely pharmacists would be far better employed using their time to optimise medicine use, increase health literacy and minimise waste rather than trying to explain this additional legislated burden on people's health, particularly those who are elderly, frail or have a chronic condition.

Pharmaceutical Society of Australia

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ADIA
australian diagnostic imaging association

Australian Diagnostic Imaging Association **Feature**

A Brave New World in Prostate Imaging

It's one of those things men don't like to talk about – but prostate cancer is too important to ignore. ADIA President *Dr Christian Wriedt* examines the diagnostic capabilities in prostate cancer imaging.

Rated as the second most common cancer in Australian men [1], it claims more than 3,000 lives in this country each year. This represents more than 13% of all our male-related cancer deaths.[2] Approximately one in seven men will be diagnosed with prostate cancer during their lifetime [3] and it is estimated that by 2020 there will be more than 25,000 newly diagnosed cases of prostate cancer in Australia.[4]

Unfortunately a patient's journey to prostate cancer diagnosis has often been an uncomfortable and unsettling one. In the past prostate biopsies, which are a vital part of diagnosis, were performed in a semi-random fashion hoping to 'hit' any potential area of cancerous change. This often resulted in a missed diagnosis or in many cases underestimating the seriousness of a cancer. These challenges often led to many men putting off a potentially life-saving check-up until it was too late.

The early detection of this disease is essential because, if confined to the prostate gland, it is often curable.[5] Thankfully, new diagnostic imaging technologies are changing the status quo, giving patients a chance to detect prostate cancer earlier and with significantly less discomfort.

The 'Gold Standard' of Prostate Cancer Diagnosis

In previous years diagnostic imaging had a limited ability to assist with prostate cancer diagnosis and treatment.

Dr Darren Ault, is a clinical radiologist and sub-specialist in prostate cancer imaging.

"Generally the path to diagnosis would be a digital rectal examination and a blood test to measure the level of prostate-specific antigen (PSA) in the patient's bloodstream. Many patients with high PSA blood levels would then be offered needle biopsy of the prostate to look for evidence of cancer, despite the fact that more than 50% of patients with an elevated PSA do not have prostate cancer," Dr Ault said.

Non-targeted needle biopsy of the prostate has several limitations in that it can miss a significant cancer or may underestimate the significance of a cancer by not sampling the most serious part of a lesion. The patient may end up with an incorrect or inaccurate diagnosis and neither the patient nor the treating doctor could be certain that a negative biopsy meant no cancer was present. On the flip side, this approach also has the risk of over-diagnosis of non-significant prostate cancer - cancer which will not cause a problem to the patient in their lifetime. Over-treating this type of cancer has associated cost and risks.

There are also specific issues with different procedures.

"There are two main types of biopsies for prostate cancer – the trans-rectal ultrasound guided biopsy (TRUS) or the trans-perineal template biopsy," Dr Ault said.

"With the trans-perineal biopsy, patients require an anaesthetic and a day stay admission. The risk of infection with TRUS biopsy can also be a source of concern for patients, particularly in the current era of multi-resistant bacteria."

So it is no wonder that many men are put off by the prospect of going through the process of a prostate cancer diagnosis – however, new advances in diagnostic imaging are fundamentally changing the patient experience and providing better clinical outcomes.

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

The 'New Standard' in Prostate Cancer Diagnosis

Today two major advances are revolutionising prostate cancer detection and monitoring.

"Previously there wasn't an imaging modality that could show you focal abnormalities in the prostate - now the latest technology allows that to happen," Dr Ault said.

Multi-parametric Magnetic Resonance Imaging (Prostate MRI) is drastically changing the way prostate cancer is diagnosed. Prostate MRI combines anatomical and functional imaging to give a more complete evaluation of the prostate. This allows radiologists to alert clinicians as to the likelihood of a significant prostate cancer being present.

"Using MRI we can now produce exquisitely detailed images that allow radiologists to define suspicious lesions within the prostate and allow targeted biopsies to confirm a diagnosis of cancer. We can also be pretty confident that a normal MRI scan means that a patient does not have significant cancer."

An Australian study into the effectiveness of Prostate MRI performed at the Wesley Hospital in Brisbane found that approximately half of the patients who presented with an elevated PSA didn't need a biopsy once they had an MRI.

"You can effectively rule out half of the patients who would normally need to undergo a biopsy. Of the remaining 50%, if you conduct an MRI-guided biopsy, patients will only need two-to-three biopsies as opposed to over a dozen which, in theory, can drastically reduce the risk of infection," Dr Ault said.

Another advance that is revolutionising prostate cancer monitoring and treatment is called prostate-specific membrane antigen positron emission tomography (PSMA-PET).

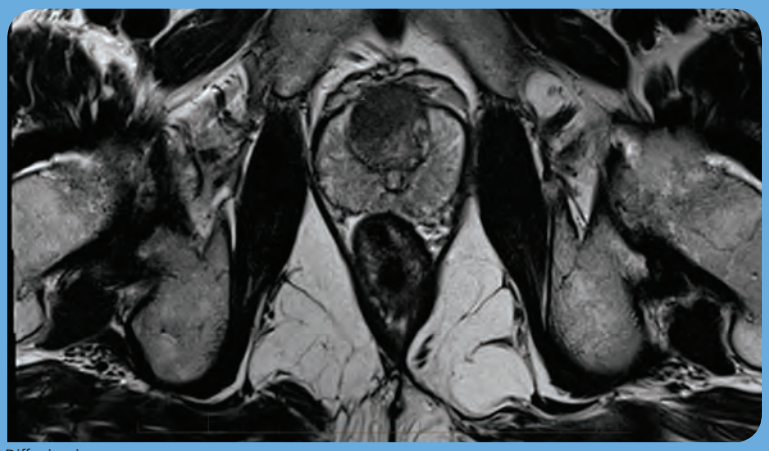
With most cancer patients, a radioactive agent called FDG is used when performing a PET scan. Unfortunately with prostate cancer, FDG-PET has been shown to not be accurate. Enter PSMA-PET, which uses a tracer designed specifically for prostate cancer.

"PSMA-PET is a hot topic – it provides information in addition to what we get from MRI. It's early days but PSMA-PET seems to have a dual role: to more accurately stage people who have high risk prostate cancers and to detect recurrent prostate cancer," Dr Ault said.

While the exact place of PSMA-PET imaging in the diagnostic pathway is still being defined it is already making a significant impact on the management of prostate cancer by increasing the accuracy in the identification of cancer within surrounding areas such as lymph nodes and bones. This is great news for patients who in the future may be able to avoid unnecessary additional surgery such as lymph node removal.

Unfortunately - despite the significant improvements to the patient experience, diagnostic accuracy and overall clinical outcome - prostate MRI, MRI-guided biopsy and PSMA-PET are not eligible for Medicare funding. →

MR images demonstrating cancer at the front of the prostate and subsequent biopsy



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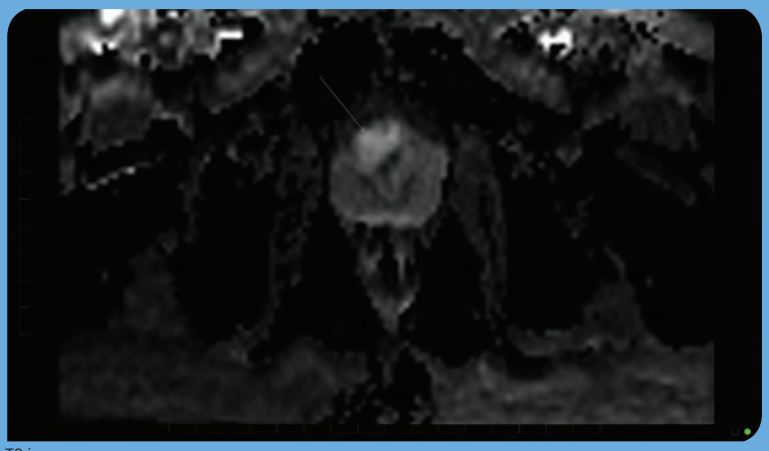

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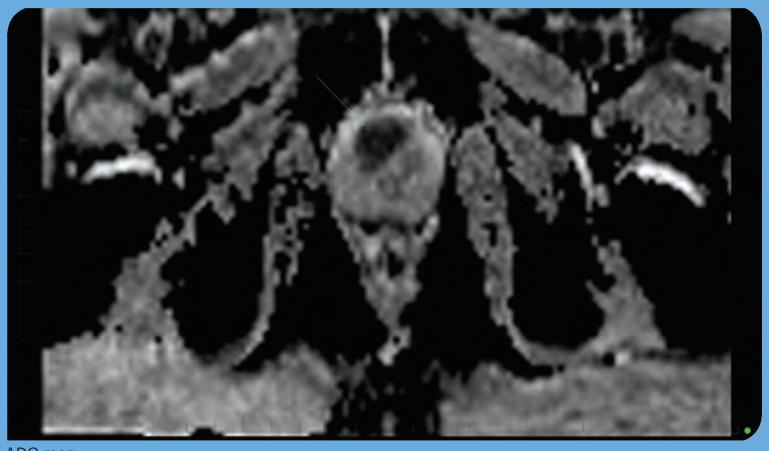
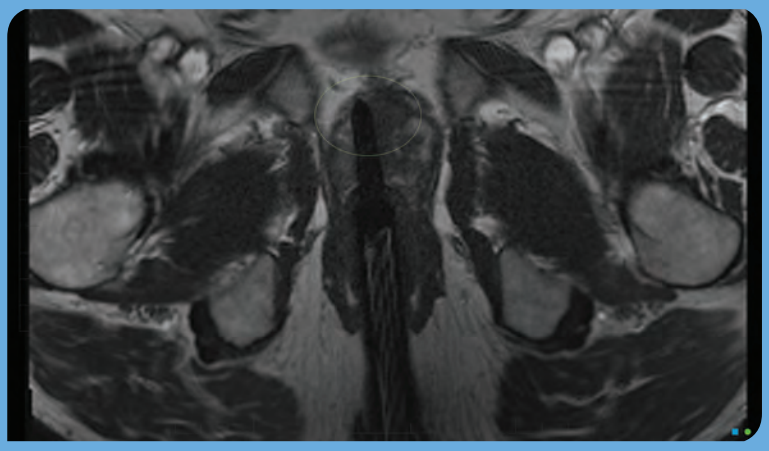
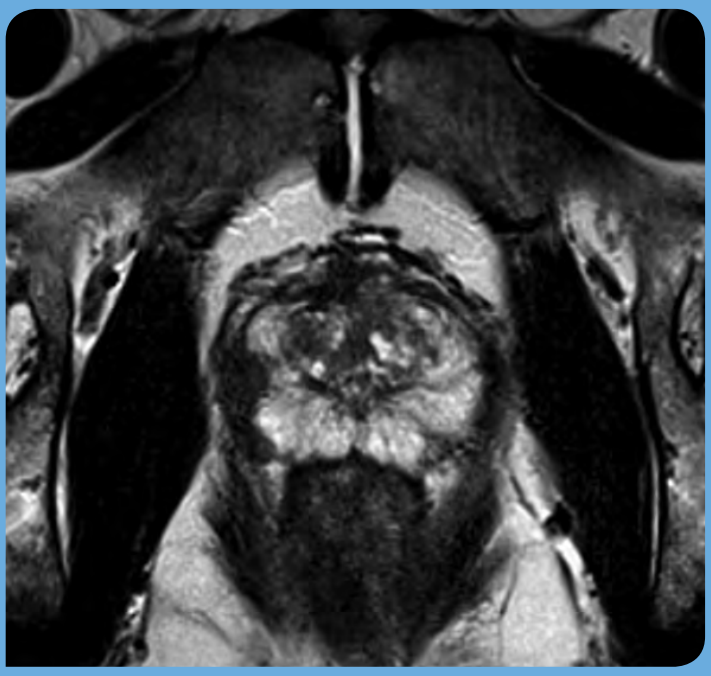


ADC map

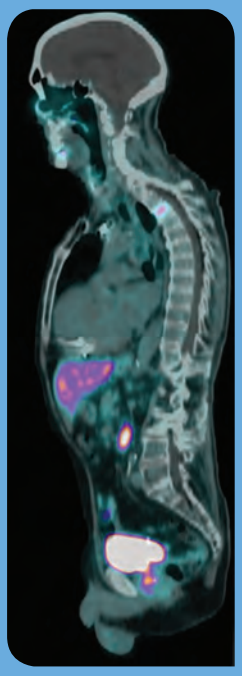


MR guided biopsy confirming needle through lesion

Prostate PSMA PET



Full Body PSMA PET image



Dr Darren Ault
Diagnostic Radiologist, Wesley Medical Imaging Brisbane

→ While there has been an application for prostate MRI and MRI-guided biopsy to be included in the Medicare Benefits Schedule, an outcome to this application will not be finalised for some time.[7] Worse still, PSMA-PET is not even being considered for Medicare funding. Without Medicare funding for these services, many patients are left facing significant out of pocket expenses (in the hundreds or thousands of dollars) in order to access the best prostate cancer diagnostic techniques. It's a cost which many Australian men simply can't afford.

The Importance of Access

Access to these technologies must be a priority for improving Australian men's health. The use of prostate MRI, MRI-guided biopsy and PSMA-PET is revolutionising how prostate cancer is detected and treated, providing safer and more efficient care for patients.

"At the moment you know that if you go to have your PSA test done and it comes back with an elevated result that you will probably end up having a biopsy. This discourages many men from getting a check-up," Dr Ault said.

"Advances like Prostate MRI reduce the chance of needing to have a biopsy by at least 50%. Those patients who still require a biopsy after MRI can now have a targeted procedure requiring only a couple of needles precisely aimed into the area of concern identified by the radiologist on the MRI images. Now that patients can have imaging to show whether they actually do have cancer or not, it is more likely that men will get that potentially life-saving check-up."

The significant cost of these new radiology services is a major barrier to patients accessing what is currently the most accurate way to diagnose prostate cancer. Accurate diagnosis also means the most appropriate management options can be recommended by a patient's treating doctor.

Appropriate Medicare funding is essential to ensure that these services are made available for all patients – not just those who can afford it.

"Advances like Prostate MRI reduce the chance of needing to have a biopsy by at least 50%."

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2 Australian Cancer Incidence and Mortality (ACIM) Books – Prostate cancer for Australia (ICD10 C61). http://www.aihw.gov.au/acim-books/ [Accessed July 2014].

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7 See Department of Health http://www.msac.gov.au/internet/msac/publishing.nsf/Content/1397-public.

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A Driver without a GPS:

The Coalition and its inherited PCEHR

Our regular eHealth columnist *David More* outlines why it looks like the Federal Government has no real viable plan to reset the national eHealth program for the future.

With the appointment of Ms Sussan Ley to replace Mr Peter Dutton as Federal Health Minister - and the even more recent replacement of Mr Abbott by Mr Turnbull as Prime Minister - there was some expectation that effective remedies for eHealth woes and better health information usage would emerge.

The hope was that we might see a reset and adoption of a new evidence-based direction for eHealth.

We have arrived in our present eHealth situation via almost 25 years of effort which has been sadly, not really based on actual evidence.

The worst offender in this regard has been the Personally Controlled E-Health Record system (PCEHR). Started in 2010 under Labor and launched in 2012, three years later it still sees such desultory adoption and use that the current Government wants to force a PCEHR on all citizens who don't choose to 'opt-out', with all the risks to privacy, consent and security this entails, in order to improve uptake.

The work to date, by both sides of politics, has been based on the rather dubious assumptions that electronic health is good for us, and that great benefits are available for the Health budget.

It should be stressed that the PCEHR is not the only electronic health record system in operation in Australia; in fact, it is one of the least useful. Hospitals, GPs, specialists, laboratories etc, all have their own systems, tailored for their needs and appropriately partitioned as to content and requirements of the health professional user.

The publicly available documentation states quite clearly that "the PCEHR system is intended to complement and not replace existing clinical information systems", and that "the PCEHR is not a replacement for normal sharing of information between an individual and their healthcare provider".

I do not dispute the potential benefits achievable through the use of eHealth record systems, however the PCEHR will never deliver any of them.

Sadly, at the time of writing in late 2015, increasing evidence has emerged that there may not be as much change on the PCEHR front as one could desire.

The evidence comes in three strands.

First, and probably most important, we had a press release from the Federal Minister for Health, Ms Sussan Ley, on October 9, 2015, entitled *Developing a 21st century electronic health record system*. This release outlined the composition of a new steering committee charged with establishing the Australian Commission for eHealth, intended to take forward both the present national eHealth infrastructure and PCEHR system which will (depending on the passage of legislation) be renamed My Health Record.

The release claims that "A functioning national electronic medical records system is essential to ensure doctors, nurses, pharmacists and other healthcare providers across the country have instant access to the information needed to treat patients safely and efficiently, without having to gamble on unknowns in their medical history."

Sadly, I'm not aware of any evidence that the proposed My Health Record will actually provide a working example of the system intended, or deliver the benefits claimed (some $2.5 biillion per annum, apparently).

Dr David More
Health IT Consultant

Dr David More is a Health IT consultant with more than 20 years' experience in the eHealth area. His blog can be found at aushealthit.blogspot.com and covers all matters eHealth. He may be contacted via the links provided on the blog.

"the PCEHR is not a replacement for normal sharing of information between an individual and their healthcare provider"

Equally it is difficult to believe that a task force mostly made up of the leaders of the failed implementation of the PCEHR is suddenly going to develop the insight to deliver a much better working system at this attempt. Surely a very substantial injection of new expertise and experience is needed, and this has simply not happened. No real reset here.

You can read the full press release from this link: **http://bit.ly/210zyG4**

The bottom line here is that we are going ahead, spending money and not really thinking hard about why the PCEHR system has been so unloved to date.

Second, we had the announcement in early October of the criteria for selection of the sub-sets of population who are to be used as the test populations for a switch of the My Health Record to an opt-out system, rather than the opt-in approach.

For those test populations, this means an individual health record will be created by the Federal Government for everyone in the area, and populated with available information from the MBS and PBS. A public education campaign will advise local people how they can take steps to notify Government that they do not wish a record created, before the trial starts.

The criteria for sample population areas for opt-out trials have been agreed by State and Territory Health Chief Executive Officers:

- Site population of approximately 250,000-500,000.
- Clearly defined geographical area so there is no confusion as to whether people are included or not.
- Ability to confine communications, including electronic media, to the site.
- Demonstrated existing eHealth capabilities and utilisation of eHealth services across local health services including General Practice, pharmacy, aged care services, and at least one hospital.
- Higher than average PCEHR uptake by providers.
- Strong clinical networks with a demonstrated commitment to the success of the trial - Primary Health Network/s, Local Hospital Network/s and any other relevant local health organisations within the trial site area.
- Positive community engagement with, and local government commitment to, previous non-eHealth trials.
- Not currently involved in, or minimal involvement with, other State, Territory and/or Commonwealth run trial activities (for example the NDIS).
- Include a range of population groups (i.e. Aboriginal and Torres Strait Islander, CALD backgrounds.
- At least one of the opt-out trial sites to include rural and/or remote areas.

You can read a more detailed discussion of the plans from the link**: http://bit.ly/1Ml2Pn0**

So in summary they want to trial the opt-out process where there is good support and some considerable opt-in to PCEHR use.

Might it not also be a good idea to trial in one or two regions where this is not the case, to get a good understanding of possible risks and issues?

To be utterly frank, I have no idea how the the very young and very old, the socially isolated, technology-illiterate, and those suffering mental illnesses and cognitive impairments are going respond to all this.

At this point, it is hard to see the trials up and running by the time you read this in early 2016 - and then running for long enough to allow a proper evaluation considering the broader scheme, along with all the "wrinkles" ironed out before mid-2017, never mind next year, as planned. Two years may even be too optimistic a timeframe.

Finally, we had the following from a speech given by the Health department's Chief Information Officer in late September.

A report of the speech given by Mr Madden to CEDA states: "But progress remains slow. While the (Royle) review recommended opt-out be introduced from the beginning of this year, legislation allowing for the regional trials and eventual national transition was only introduced to the Parliament last month. Nonetheless, although it 'needs some tweaking' and usability changes, 'the good news for our government is they're not up for a really big system build', said Madden. 'The system exists, it's been there for three years.' And it's been improved from where it began. Whereas the prospective customer needed to endure clicking through 17 screens to prove their identity when it was first created, the system is now down to two."

Mr Madden's claims regarding benefits of the system are also - to my eye, and putting it gently - pure fantasy.

To quote again: "It is expected that putting records online could save the Commonwealth $2.5 billion per year within a decade by reducing inefficiencies, with an additional $1.6 billion in annual savings also delivered to the states, according to the Government."

Here is the link to the relevant article: **http://bit.ly/1ltG3kf**

Overall, all this reveals an utterly clueless collection of bureaucrats, steaming on in an attempt to implement an evidence-free program, in the absence of a coherent National E-Health Strategy and before any appropriate governance mechanisms are in place to look after the interests of a very broad range of stakeholders.

This is all going to end very expensively, and very badly, I predict.

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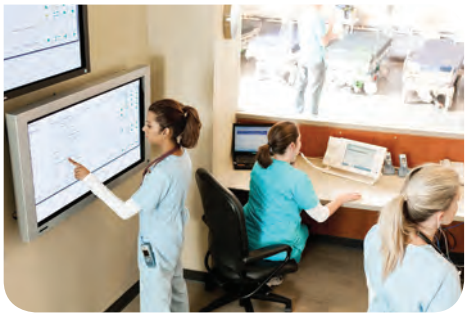

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