

Volume 9 - Summer 2009

Welcome to the final edition of Simulation Update for 2009.

This year we have seen the continued growth and adoption of simulation in the various areas of healthcare training and education and this is set to continue.

For this edition we focus on three innovative approaches to simulation being used in Hospital and educational settings. We also review the highlights of another excellent SimTect conference held recently in Melbourne.

At Laerdal we are pleased to announce a National SUN (Simulation User Network) meeting planned for next June. With a format and location designed to appeal, combined with guest speakers, be sure to pencil this event in.

Enclosed you will have noticed an attractive introductory offer for our Educational courses. This is available until to June 2010.

As always we hope you enjoy this edition as we are proud to share news and exciting developments within the industry and our simulation user network. Your feedback and story ideas are always welcome; please email us at

customer.service@laerdal.com.au (Australia) or

customer.service@laerdal.co.nz (New Zealand)

Thanks for your continued support during the year; we wish everybody an enjoyable Christmas and Safe New Year.

Conferences 2010

Date	Conference	Location
11-12 March	ClinEdQ: Innovate and Educate 2010	Brisbane
18-19 March	Leadership & Practice Development Conference	Hobart
11-14 April	International Nurse Education Conference	Sydney
June	Laerdal Simulation User Network (SUN) Meeting	Sydney
30 Aug-2 Sep	SimTect Health 2010	Melbourne

SIMULATION CENTRES AROUND THE COUNTRY

From advanced 'real life' simulation using manikins and actors in a Brisbane university to a specialised training environment in a small NSW hospital, Simulation Centres are fast becoming the norm for state-of-the-art simulation training in Australia.

Simulation Centres enable on-the-spot learning as well as ample opportunities for evaluation and reflection.

Allowing undergraduate students to dip a toe in the water of emergency medicine or staff to improve their clinical skills on a sophisticated, interactive manikin, Sim Centres enable on-the-spot learning as well as ample opportunities for evaluation and reflection. The recent **SimTect Health Simulation Conference** in Melbourne highlighted some of the groundbreaking work being done to establish these centres around the country, and in this issue we take a look at some of these innovative approaches.

Variety the key in Queensland

In the School of Nursing and Midwifery at the Australian Catholic University (ACU) in Brisbane, senior technical officer/RN Karen Downes likes to throw a few spanners in the works to keep students on their toes: "with so many people using the Centre, we run the courses concurrently. They could go away and tell their friends, and wouldn't get the full learning experience. So we like to change the scenario slightly."

Established in 2006, the ACU Sim Centre uses diverse techniques to expose students to the broadest possible range of realistic scenarios. Two complete low- and medium-fidelity nursing wards are run, and a specialised laboratory runs high-fidelity training. This high-fidelity room includes an observation area for the lecturer to film the training session, provide cues from the manikin or encourage their students. Only 2-4 students train in the room, and often the rest of the class (about 20) stand in the observation area to heighten their learning experience.

"Very rarely is a patient in isolation," observes Downes. "So our students need to learn not to just focus on one little piece of the body. They have to focus on the whole client and surrounds, the people, the noise, emotions and so on." ACU's simulation days involve a simulated trauma created using a combination of manikins, live actors and makeup. A recent day involved four 'victims' in a motorcycle crash scenario, where students could receive actual feedback as they attended the scene. Another day was arranged for the SimMan to be EVACed to the Centre, however with the helicopter called away on an emergency, the trainers had to improvise. "Because he's so versatile, we were able to change the scenario slightly," said Downes. "We can run him on the fly."

This adaptable, inclusive approach means that academics and technical staff collaborate to develop new ideas and themes every semester. And in this highly supported environment, the better prepared the students will be for the reality of healthcare.



ACU's recent multi-trauma simulation session involved 4 victims in a motorcycle crash scenario.

Simulation UPDATE

Small is beautiful in New South Wales

With thoughtful planning and course design, 250-patient Hornsby Ku-ring-gai Hospital is now a hub of simulation training in its region.

Clinical nurse consultant Jay Halkoree first noted that with the changes in healthcare, Hornsby was not meeting the requirements of modern healthcare. He later secured the funds for a SimMan with the aid of the 'Pink Ladies Auxiliary' (a volunteer organisation), which saw the benefits not only to Hornsby but the surrounding community.

Formally launched in July last year, the Centre now runs non-stop for doctors and nurses. It covers short and long simulation sessions, weekends, afternoons and night shift as well. Halkoree notes the usefulness of a SimMan in a smaller set-up, in that it can add on extra functions and has a long lifespan. "There's no point buying something you'll use for a while and then have to change it," he says. "You've got to buy something that will give you benefit in the long-term."

In this busy hospital, Halkoree (not a technician) is the only one running the Centre. It operates up to four days a week, about 1½ hours per day. In trying to capture as many people as he can, he targets individual wards or departments via e-mail, rather than advertising general sessions. Nurses get different kinds of training every time they come in, from some basic scenarios to looking after deteriorating patients, while doctors attend targeted sessions depending on their expertise.

"It's making a huge difference to communications," says Halkoree. "Nurses are reporting that they're calling the right people at the right time. It also makes people more confident in dealing with patients." Even in a smaller set-up, this valuable practice can improve the essential communication and coordination that brings an effective team together.



Hornsby Ku-ring-gai Hospital's new simulation laboratory.

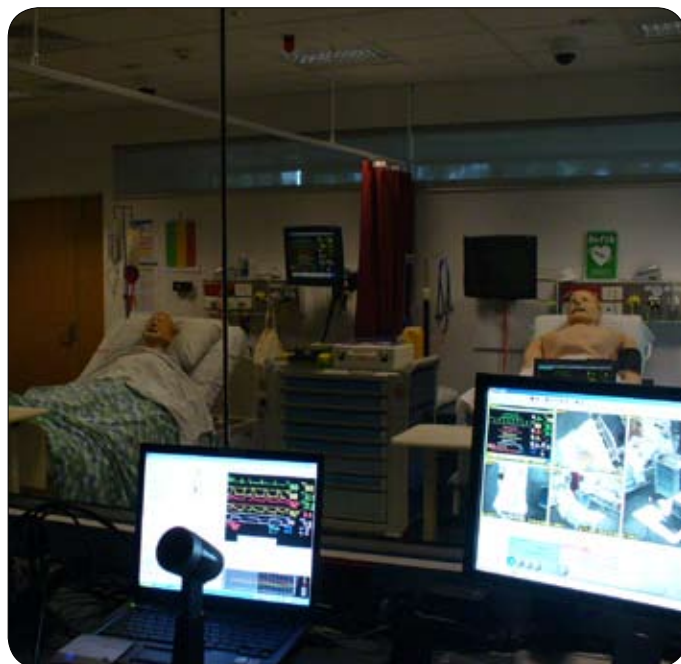
The broader picture in Tasmania

Demonstrating how with an extended program and investment in simulation, the University of Tasmania's (Utas) Sim Centre is now a leading light of simulation in the country.

Utas recently bought the next generation SimMan 3G for the School of Nursing and Midwifery (SNM) Simulation and Clinical Education Centre in Launceston. The first university in Australia to put 3G into full operation, this new manikin complements the university's impressive 60 task trainers, Vital Sims, Nursing Annie's, Mega Code Kids, Sim Baby and SimMan technology.

Coordinator of Immersive Simulation at the SNM Simulation Centre, Nigel Chong, is enthusiastic about the potential of this new addition: "We can deliver clinical scenarios at any location in any conditions using 3G. We can run an emergency scenario right from the scene of a road accident, transfer 3G to the ambulance and then to our simulated hospital, whilst at all times being able to control physical signs and symptoms to meet the educational needs of the students."

The newest technology has allowed Utas SNM to expand its training to outside healthcare providers including the Launceston Clinical School MBBS program, rural remote clinical centres and Calvary Health Northern Tasmania's Patient emergency Response program. The Utas SNM is developing future pathways for simulation-based technology to allow current and future clinicians to meet the ever-changing needs of the patients that they treat.



Utas Simulation ward viewed from the control room.

Send your story ideas and photos for Simulation Update to:

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(L-R) UTS' Michelle Kelly with Suzan Kardong-Edgren, Laerdal's Tom Guthormsen and Tracey Beacroft at Sydney's Simulation in Nursing Workshop.

PLANNING FOR SIMULATION: 2009 SIMTECT

This year's SimTecT conference showed that there's a lot more to simulation than plugging in new equipment. With the theme of "Simulation: Beyond Technical Skills" the SimTecT 2009 Health Simulation Conference was held from 7–10 September this year in Melbourne.

Highlights of the conference included a talk on simulation project planning by Michael Seropian, Katie Walker and Anthony Rowley, which provided an overview of how to make an effective business plan, and budget for developing a simulation centre. Leading debriefing expert Peter Dieckmann led a hands-on workshop on how to conduct effective debriefings. The participants practiced their own debriefings focusing on behavioral aspects based on videos and live practice examples.

Putting simulation initiatives into a broader government perspective, Director of National Healthcare Workforce Taskforce (NHWTF) Peter Carver discussed how COAG reforms will impact on clinical training governance, organisation and delivery, including simulation. A panel discussion covered some of the major considerations in establishing a national plan, and looked at training plans in other countries.

Laerdal also supported Suzan Kardong-Edgren PhD RN to present a number of talks and workshops. This highly respected guest speaker in the field of simulation is an assistant professor of nursing at Washington State University in the USA. She recently served as one of nine simulation experts for the second joint Laerdal Medical Corporation/National League for Nursing project and the development of the Simulation Innovation Resource Center, a full service website of simulation resources and courses for nursing simulation. (<http://sirc.nln.org>)

Prior to SimTecT Suzan presented the talk 'Integrating Simulation into your Nursing Curricula' at a series of workshops around the region, including Australian Catholic University in Brisbane, University of Technology Sydney, and after the conference at the Mercy Advanced Clinical Skills Centre in Auckland.

Addressing participants from a broad range of schools and curricula, Suzan discussed the detailed planning that goes into running a successful simulation centre. She emphasised the high level of administrative and technical support needed, as well as the freedom to move forward after initial set-up. Suzan cautioned participants to start small with their simulation centres, to allow students and teachers to integrate simulation into daily teaching, and increase training expectations of employers.

In Brisbane, Suzan took participants on a guided tour of the ACU Simulation Centre. Participants were inspired by the professionalism of their lab staff and the availability of up-to-date equipment and resources, and were excited to network and share knowledge of lab activities between other nursing schools.

Next year's SimTecT Conference will be held at Hilton on the Park in Melbourne from 30 August until 2 September.

UK MEDICOS LOOK TO THE SKIES

According to the UK Department of Health, the future of simulation in the UK will look to successful training methods used in aviation and other high-risk industries.

'Safer Medical Practice: Machines, Manikins and Polo Mints' has revealed how reducing risk from rare events is through repeated training in a safe environment, so that when they face a real-life emergency they do so with the experience of detailed rehearsal.

Using existing models used by pilots as examples, the report shows that by allowing the participant to hone their skills through constant practice rather than trial and error, the benefits of simulation comes from assessment and feedback, unlike surgery, when learning often comes from adverse events.

It emphasises how despite how good an individual's skills are, the best results come from working together in a team. The usefulness of highly realistic, clinical team-based simulation is that it allows people to develop their skills in a controlled environment, and allows them to debrief afterwards. With improved technology many simulations are filmed, which enables doctors to watch and analyse their behaviour afterwards and learn from their performance.

This UK report is a clear endorsement for the importance of simulation in the medical world, and shows how simulation training in all its forms will be a vital part of building a safer healthcare system.



Simulation UPDATE

Training suite for Wellington's Ambulance Fleet

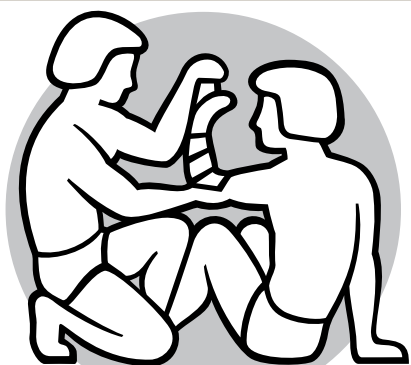
New Zealand's Wellington Free Ambulance is a real community and team service.

It provides the only emergency ambulance service to the Wellington Region of 4,000 square kilometres with a population of 412,000. The service has 200 staff, including 86 on road paid paramedic staff as well as 55 on road volunteer paramedics.

Recently the service developed a new simulation suite to give staff and volunteers greater skills when delivering care to the citizens of New Zealand's capital city.

The new simulation suite incorporates four areas:

1. A scenario room set up as a typical bedsit that paramedics may encounter on the road, complete with all furnishings.
2. A static ambulance equipped with all the equipment paramedics will be using on the road.
3. A mobile control room, affectionately known as the "shed", which houses all the AV recording equipment and manikin controls and is where tutors can run the scenario from behind a large one way window.
4. A debrief room which is equipped with an AV link that enables onlooking students to view the simulation on a monitor as it is happening. It is also where post simulation debriefing is held.



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offer on Laerdal's educational courses.

The scenario room and ambulance are both equipped with microphones and video cameras enabling the simulation to be recorded. One of the advantages is that paramedic students can run a whole scenario from initial assessment and management of the patient, through to loading onto a stretcher and continuing assessment and management in the ambulance. Future plans hope to simulate an Emergency Department Handover Area so that simulation can be carried through to hand over at the hospital.

The suite was built in a double bay of an ambulance station garage. The mobile control room and AV equipment is designed to be portable, so that simulation exercises can also include outdoor motor vehicle accidents. Wellington Free Ambulance is using the new simulation suite to support its on-road staff education in several ways. All staff complete a four day refresher training course every three years. One day of this course is devoted to simulation training and in addition, staff completing paramedic qualification courses have time in the simulation suite as part of their training.

The key success is this training has allowed practice of skills in high fidelity clinical situations that paramedics rarely encounter on the road. One of the additional benefits of simulation training is it has enabled a focus on scene leadership and communication; skills that have been traditionally hard to focus on previously in scenario based training. Paramedics who have done simulation training say it has given them much more confidence when they are on the road.

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