EDUCATION THROUGH
Simulation and Resuscitation News
Issue 20 - Spring 2014

Welcome to the 20th edition of our Newsletter.

Simulation continues to evolve across multiple healthcare settings and disciplines and I am sure you will find the articles included in this issue both interesting and informative.

In particular, I would like to draw your attention to our lead story exploring Inter-professional education for Medical and Pharmacy students. My thanks go to Clare Cann, Mat Smith and Paul Frost at Cardiff University for their insights into how simulation training can mitigate some of the common causes of medication errors.

At the last ASPiH conference we were proud to be sponsors of the Keynote Speech given by Dr. Barry Issenberg and I am sure you will be interested to read about his current work and research.

There are many more interesting articles for you to peruse in this issue. Please note the 'Dates for the Diary' on the back page for events we are attending this year.

In the meantime, enjoy the read!

Jon Laerdal
Managing Director, Laerdal Medical UK

Contents

Piloting Inter-professional Education for Medical and Pharmacy Students

Clare Cann, Mat Smith, Paul Frost, Schools of Medicine and Pharmacy & Pharmaceutical Sciences, Cardiff University

'Tomorrow's Doctors' states that Medical graduates must be able to prescribe safely and effectively, whilst the code of conduct for pharmacy students states that students must, be prepared to challenge the judgement of others if there is reason to believe that their decisions could compromise safety / care.[1,2]

A major investigation by the GMC into the causes of prescribing errors by foundation trainees demonstrated an 8.4% error rate in medication orders written by Foundation Year 1 doctors and also highlighted the vital role played by pharmacists in detecting these errors before they could impact on patient care.[3]

This study highlights the need for excellent communication between doctors and pharmacists and a mutual understanding of professional roles. Unfortunately however, opportunities for medical and pharmacy students to develop these competencies together are limited.

Learning together

We believe that the competencies required by pharmacists and doctors to ensure safe and effective prescribing can be developed utilising simulation. Not only can simulation replicate the work environment but also the numerous, complex, clinical interactions between healthcare professionals, patients, relatives and carers.

Clinical scenarios can be designed to target specific learning points such as knowledge of important drug interactions and relevant non-technical skills that maintain good working relationships whilst correcting errors.

> *"We believe that the competencies required by pharmacists and doctors to ensure safe and effective prescribing can be developed utilising simulation."*

At the state of the art Simulation Suite, Cochrane Building, Cardiff University, our Schools of Medicine and Pharmacy carried out a pilot using simulation as an effective way to enhance communication skills and professional understanding between our students.

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Clare Cann, Mat Smith, Paul Frost,

What we did

The pilot was designed in collaboration with Faculty from both Schools for final year Medical students (n=5) and final year Pharmacy students (n=5). The session commenced with a description of learning objectives; accurate prescribing and effective communication; and a short video demonstrating effective multi-disciplinary team working. Two scenarios were provided which focused on dangerous prescribing errors based upon events which potentially could occur in the clinical setting.

	Scenario description
Scenario 1	Acutely ill patient (Laerdal ALS Simulator Advanced) in a high dependency unit. Renal failure and hyperkalaemia. Prescribing error was potential overdose of insulin due to units being inappropriately abbreviated as 'u' and this letter being misinterpreted as 0; i.e. 10U misread as 100 units.
Scenario 2	Simulated patient (Faculty member) in ward setting awaiting discharge. Take home prescription written with a dangerous drug interaction between warfarin and metronidazole.

Faculty acted as relative and nurse in both scenarios.

The medical student was the prescribing doctor whilst the student pharmacist was briefed to review the prescription chart to identify and manage the error. The remaining students observed the scenario in the debrief room through live-feed from the audio visual camera system. Observer students were divided into groups and asked to note either technical or non-technical points for debrief discussion. Following each scenario both senior clinician and pharmacist facilitated a debrief involving all the students and faculty. This was structured to encourage the students to reflect on accurate prescribing and communication.

At the end of the session the students were asked to complete a Readiness for Inter-Professional Learning Scale (RIPLS) questionnaire[4] using a five point Likert scale, (1=Strongly disagree and 5=Strongly agree). The RIPLS questionnaire included 17 questions regarding Inter-Professional Education (IPE) e.g. Question 1: Learning with other students / professionals will make me a more effective member of a health and social care team. Summary evaluation of 17 questions showed an average response of 4.7 on the Likert scale.

Our collaboration has demonstrated that IPE can be effectively delivered using simulation and that this experience was overwhelmingly well received.

"A major investigation by the GMC into the causes of prescribing errors by foundation trainees demonstrated an 8.4% error rate"

Useful lessons

As with all innovative developments there were challenges. Our original plan was to involve three professional student groups in the session, however logistics (time tabling) prevented this from coming to fruition. "Perhaps the take home message here is to keep things simple, a collaboration between two Schools is simpler and better than no collaboration at all", said Clare Cann, Senior Simulation Tutor from the School of Medicine. "Although only small student numbers were involved we hope to build upon this", comments Mat Smith Lecturer and faculty member from School of Pharmacy. "We are in the process of disseminating our work and anticipate that this may encourage others to follow suit", (Clare Cann). "High quality clinical care is utterly dependent on effective multidisciplinary team working and yet inter-professional learning opportunities for students are limited. This anomaly must be addressed," summed up Paul Frost, Clinical Senior Lecturer, School of Medicine, Cardiff University.

The Future

Effective multi-disciplinary team working is crucial in the National Health Service. IPE is in its infancy but is curricula agenda for both governing bodies of the Cardiff Schools of Pharmacy and Medicine and thus is likely to assume a more prominent future role.

For further information please contact Clare Cann cannc@cf.ac.uk

References

1. Tomorrow's Doctors GMC 2009; London: 25.
2. Code of Conduct for Pharmacy Students GPC 2010; London: 7
3. Dornan T et al. EQUIP study GMC 2009; London.
4. Parsell G, Bligh J. Med Educ 1999; 33: 95-100.

Laerdal sponsors Barry Issenberg presentation at ASPiH

Laerdal presents SimJunior in ethnic skin tones

The fourth annual conference and exhibition of the Association for Simulated Practice In Healthcare (ASPiH) took place in Harrogate, in November 2013. As primary sponsor of the well-attended conference, Laerdal was proud to welcome keynote speaker Dr Barry Issenberg.

Rosie Patterson, former MD of Laerdal in the UK, explained, "We were delighted to play an active role in this important event. Our long relationship with ASPiH is indicative of our commitment to supporting healthcare professionals in the increased use of, and technological advancement of patient simulators and associated services. As well as showcasing our new products at the exhibition and providing equipment for live workshops, we wanted to sponsor a keynote presentation that would attract major interest."

"We have known Dr Issenberg and have supported his work for around 15 years. Based at the University of Miami, Dr Issenberg has focused on the research, development, implementation, and evaluation of simulation and computer-based teaching systems throughout his career. In addition to leading a consortium of clinical educators from fourteen international medical centres, he is the author of more than a hundred and fifty publications and e-learning programmes. Bringing our global network closer to the UK was something that we have always been keen to do, and we were very pleased that he was able to come over and share some exciting and very relevant information with delegates from all over the country."

> *"Real educational value could be determined as something that had been so impactful during training that it had transferred to working practice."*

While Laerdal's new range of Sim Junior manikins and Resusci Anne manikins with QCPR created a buzz in a series of live workshops over the three day event, Dr Issenberg's presentation packed the Majestic Hotel's conference hall with around three hundred delegates. His audience listened intently to a vivid account of the history, growth and value of education through simulation to improve patient safety in today's healthcare practice.

Research Methodologies in Simulation

Dedicating his presentation on a light-hearted note to "anyone who has ever faked anything", Dr Issenberg immediately engaged the audience of healthcare practitioners.

He explained how his recent research into education through simulation began ten years ago, when the Miami Group – a consortium of clinical practitioners – described how real educational value could be determined as something that had been so impactful during training that it had transferred to working practice. Dr Issenberg's research into successful training led to the publication of the BEME (Best Evidence Medical Education) Guide, which features various best practice uses of simulation training that has led to effective learning and outcomes. "In downtown Miami," he said, "we are not wedded to any one technique. Our philosophy is to try anything that will work."

Between 2003 and 2009, following the success of the BEME Guide and increased

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Rosie Patterson, Former MD, Laerdal Medical and Dr Barry Issenberg

use of simulation based education in the curriculum, Dr Issenberg led another review, which looked at further papers and reviews of trials – the methodology of training using simulation. Many of these discussed the role of the instructor and educational context, maintenance of skills learned, and using simulation as an assessment tool.

After an extensive period, Dr Issenberg and his team concentrated on fourteen studies of randomized trials, cohort studies, case-controlled studies and pre-to-post baseline studies. Reflecting on the focus of the exercise, he said, "We were particularly interested in the concept of Mastery Learning – in which all students should achieve extremely high standards through repetition of processes."

Simulation-based Mastery Learning

"Having looked at the findings in the reports, there was no doubt that simulation based mastery learning is superior to traditional clinical education," said Dr Issenberg, "as powerful, consistent and without exception. If all students were to achieve the highest skill level, they needed to practise a great deal, and then they were likely to sustain skills and transfer them into the real world."

"However, we wanted to challenge the findings of the successful trials, believing that what people do every day in the real world is different to working in the controlled research setting. We discussed this with our colleagues from Korea, who were not getting the same results using the same learning methods. We looked at their instructors - who were experts in their field – and found that although they were incredibly knowledgeable and skillful, they had had no prior training experience for teaching. On further examination, we found that teaching was carried out either between 8pm and 10pm after a full working day or on Saturdays after a working week, when students and instructors were naturally tired."

"Our research led to the recognition that there was a need for articles stating that the best time of the day to learn and teach would be between 8am and 9am."

"We are not wedded to any one technique. Our philosophy is to try anything that will work."

Trial vs reality

Further examination of the success of the trials also determined that as a rule the controlled training sessions had not taken into account the normal complexities, distractions, politics, environment and realities of the working world.

Dr Issenberg believes that if healthcare education is to be successful, it needs to have a multi-level approach. It makes absolute sense that practitioners should be encouraged to make time to train regularly to maintain and learn new skills.

"Training should not be optional," says Dr Issenberg. "In keeping with the theory of mastery training, to reach excellence you are looking at repetition of practice of up to 600 trials. Also, instructors should be given roles that systematically match those they want to teach, so some educators could be given more of an advisory role, others who are perhaps more engaging, could be given more of a hands-on role and some could be given the opportunity to research and evaluate, plan scenarios or take charge of the technical or academic aspect, if that's where their skills and their personalities fit more comfortably."

A dramatic impact

Throughout the study, in order to obtain reliable results, the team has looked at curricula content, format and materials, the assessment process, the environment in which learning took place including high level buy-in for the training, evaluation of trials, the politics and culture surrounding patient safety and opportunity for training.

"I came across a study written by Charlotte Ringsted that mentions all of the above," he explained, "and liked it so much I developed a framework I like to call 'Charlotte's Ring'. In this framework, all the separate elements and complexities are interactive and in context with each other. I believe that this current project will have a major impact on the US. It is only when we fully understand and provide an educational framework that takes all these complexities into account, will we be able to realize all of the factors that can impact patient safety."

Summarising the value of simulation in education, Dr Issenberg said, "The best transfer of skills learned through scenario based training using simulation equipment goes back and forth continually from the training environment to real life and then back again to training. If you want to achieve a sustainable transfer of skills, you have to get buy-in from leadership and sustained revenue or grant funding; trainees and instructors need to be motivated and you need to work with multi-disciplinary teams that include researchers, educators, engineers, administrators and clinical practitioners."

For more information on Dr Barry Issenberg and his research, please visit www.gcrme.med.miami.edu

Getting better all the time!

Improving BLS Training with Live CPR feedback

New BLS training at Frimley Park Hospital

While BLS training remains the principal workload of Resuscitation Departments, with a high throughput of students and the responsibility to ensure CPR competence at an organisational level, how can the Instructor accurately judge CPR performance and be confident that all students are leaving the course Guideline compliant? Karen Britton, Resuscitation Officer at Frimley Park Hospital tells us how she is improving CPR competence on BLS courses with the new Resusci Anne QCPR manikins.

The Resuscitation Department at Frimley Park Hospital runs its BLS course 3 times a week with class sizes ranging between 12 – 15 students in each class. Like many Resuscitation departments around the country, the Little Anne was the staple manikin used for all BLS training. Looking to update her teaching equipment, Karen tested the new Resusci Anne QCPR manikin with SkillGuide.

The SkillGuide is a small, electronic device that when attached to the manikin, records and displays real-time feedback on the core parameters of CPR performance (depth, rate, incomplete release and ventilation volume).

"As Resuscitation Officers, we all strive to ensure that students attain Guideline compliant CPR but judging the quality of CPR performed can be a challenge and imprecise. With the SkillGuide providing real-time feedback, the instructor and student can see straightaway the level of CPR being performed and what aspects need to improve", observed Mrs. Britton.

"With the SkillGuide the instructor and student can see straight away the level of CPR being performanced."

Commenting on the differences between teaching using both manikin types, she continued, "The 30 minutes hands-on session in the BLS course has become much more meaningful. Students can be self-directed in their CPR practice with the feedback on the SkillGuide guiding their improvement until they reach the required standard. And with the SkillGuide's summative feedback and scoring function, we can now be certain they have reached that standard."

When asked if the students liked the new style of training, she said, "The student feedback has been really positive. They seem much more engaged in the training and more motivated and competitive with themselves to improve their scores. The sessions are noticeably more fun and interactive."

Looking ahead to the future of BLS training at Frimley Park Hospital, she said, "I can certainly see a measured improvement in CPR performance compared to previous BLS training. Using feedback is definitely the way we will move forward to improve CPR competence in our organisation."

Guided improvement with SkillGuide

The new SkillGuide for Laerdal's new QCPR manikins enhancees the ability to measure, track and improve CPR skills. Small, portable and lightweight, it is compatible with Resusci Anne with QCPR and Resusci Baby with QCPR.

Inspiring a generation to help save lives
Pupils in Leicester take a practical lesson in CPR

On the 28th February, a pioneering scheme was launched at the Leicester Tigers' Stadium to turn school pupils across Leicestershire into a 'generation of lifesavers' by teaching them how to perform CPR and use a defibrillator.

The Leicestershire Heartsafe Schools Programme is being spearheaded by Dr. Doug Skehan, Consultant Cardiologist at Leicester's Glenfield Hospital, and Dr. William Toff, Senior Lecturer in Cardiology at the University of Leicester and Glenfield Hospital. It aims to ensure that all Year 10 secondary school pupils across the city and county are taught practical CPR skills and AED use, as well as ensuring that every secondary school has its own AED on site, ready for use if someone suffers a sudden cardiac arrest.

"This is a pioneering scheme and the first of its kind in the country", said Dr. Skehan. "It involves local and national charities, schools and health and other organisations." The ambition of this initiative is to not just to create a generation of young lifesavers, but through them, pass on the life-saving knowledge and training to their families and other parts of the community. In his presentation explaining how this ambition will be practically realised, he said, "Over the next year, we are hoping to provide training to 12,000 pupils. If we can teach more people what to do in an emergency, I believe we can increase the survival rate of people who are seen having a cardiac arrest from the current 10% to perhaps as much as 50%".

> *"If we can teach more people what to do in an emergency, I believe we can increase the survival rate of people who are seen having a cardiac arrest from the current 10% to perhaps as much as 50%"*

The programme is very much in line with the objectives of the RC(UK) and the British Heart Foundation (BHF) Campaign to have ELS training included as a mandatory part of the national school curriculum.

A successful launch

The launch was attended by 250 pupils representing schools across Leicestershire. To facilitate CPR practice, the BHF provided a room full of Laerdal Medical Mini Anne Plus re-usable manikins for a practical hands-on session following the presentations.

The use of the Mini Anne kit for wide-scale community projects in CPR training is a model used successfully by the BHF for their school programme. The inclusion of a self-directed instructional DVD allows for greater reach of CPR education in the community, as the pupil can take the Mini Anne Plus manikin back home to friends and family for their use. Referred to as the 'Multiplier Effect', CPR skills are further proliferated in this way.

A community coming together

Such ambitious projects take the tireless efforts of individuals and organisations to come together. This campaign is no different, with many leading institutions such as the BHF, RC(UK), University Hospitals of Leicester and East Midlands Ambulance Service, to name a few, playing a significant role in the realisation of the

The programme has benefited from a donation of 40 Philips' HeartStart AEDs made possible by a generous discount from Philips Healthcare and local charity contributions, notably the East Midlands Pacemaker Fund

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School children practise CPR with Mini Anne Plus

project. But as so often is the case, it can take a personal tragedy to bring impetus, momentum and indefatigable campaigning to raise awareness of current sudden cardiac arrest outcomes and the need to promote community CPR and AED knowledge to improve them.

The Joe Humphries Memorial Trust has played this key role in the development of the Heartsafe Schools Programme. The Trust was set up in memory of 14 year old Joe Humphries who died from Sudden Arrhythmic Death Syndrome (SADS) in October 2012. Joe's parents, Steve and Angie Humphries, set up the Trust and work hard to raise public awareness of SADS and funds to help train people in resuscitation skills. "The Trust is very proud to be a partner in this initiative", said Mr Humphries. "Thousands of lives could be saved if the public had the skills needed to deliver resuscitation immediately."

The first phase of the programme will see training offered to all Year 10 students over the next 18 months. About 60 doctors, nurses and technicians at Leicester's hospitals have volunteered to give the training, including to school staff, who can then also pass on the skills.

Information about Leicestershire Heart Safe can be found at: www.jhmt.org.uk

Helping communities to help themselves

Spreading the knowledge of CPR with Mini Anne

While Resusci Anne has helped to train CPR to over 300 million professional and lay responders around the world, the Mini Anne has been designed with an ambition to exponentially increase this number by offering a cost-effective, practical training solution for community projects in CPR proficiency and AED use.

Self-Directed Learning

The Mini Anne Kit includes a small, inflatable manikin and a 30 minute instructional DVD which provides a 'practice while watching' CPR training solution, taking the user through the necessary steps to help a victim of sudden cardiac arrest (SCA) should they ever witness such an event.

The original Mini Anne, which was launched in 2005 has featured in many large scale CPR training projects that have successively found their way into the World Record Book. The current World Record Holder is the town of Muenster, Germany where its community project successfully trained 11,840 school children simultaneously. But the reach of Mini Anne in spreading CPR knowledge does not just end with the direct participants at these events. As children take the Mini Anne home, family and friends can also learn the same skills, thereby creating more potential lifesavers in the community.

Supporting the Bystander

Despite continuous efforts to improve prognosis for the out-of hospital SCA patient, survival to discharge rates have remained low; a fact observed in multiple international healthcare systems, which has prompted wide scale research into both causes and recommendations for more effective treatment measures. Common to all is the recognition of bystander importance and through their intervention prior to EMS arrival, the potential to positively influence patient outcomes.

The Danish Experience

A low frequency of bystander CPR and low 30-day survival were identified nearly 10 years ago in Denmark, which led to a nationwide study with several national initiatives to strengthen bystander resuscitation attempts. Amongst these was the implementation of mandatory resuscitation training in elementary schools supported by the free distribution of 150,000 Mini Anne Training Kits between 2005 and 2010 (funded by the Trygfonden Foundation), as well as a large increase in public access AEDs located outside hospitals (approximately 15,000 were in place by 2011).

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Findings from the 10 year study (2001- 2010)[1] identified a relationship between CPR training and increased bystander resuscitation attempts, as well as an increase in survival following out-of hospital cardiac arrest that was significantly associated with a concomitant increase in bystander CPR.

Introducing Mini Anne Plus

Developed in collaboration with the American Heart Association, the Mini Anne kit has now supported many school CPR projects globally. In the UK, it has been an integral part of the British Heart Foundation's programmes to raise CPR awareness and competence nationally.

> *"The current World Record Holder is the town of Muenster, Germany where its community project successfully trained 11,840 school children simultaneously"*

Now, the recently launched Mini Anne Plus kit provides instructors with a reusable version ensuring hands-on CPR training is available to all in the smaller community class setting.

Mini Anne Plus is designed to increase efficiency while maintaining quality CPR education. With improved reusable manikins now in a class set, Mini Anne Plus is the ideal classroom solution for CPR training. Ten individual manikins are included in each kit, increasing student hands-on time during training. The innovative new pump bag provides a simple, hygienic inflation method. Mini Anne Plus includes everything to get your CPR programme up and running in one convenient bag and is available in light and dark skin tones.

New Mini Anne Plus

Reference

1. Association of National Initiatives to Improve Cardiac Arrest Management with Rates of Bystander Intervention and Patient Survival After Out-of Hospital Cardiac Arrest.

Mads Widdenberg, MD; Freddy K. Lippert, MD; Fredrik Folke, MD, PhD; Peter Weeke, MD; Carolina Malta Hansen, MD; Erika Frischknecht Christensen, MD; Henning Jans, MD; Poul Anders Hansen, MD; Torsten Lang-Jensen, MD; Jonas Bjerring Olsen, MD; Jesper Lindharsden, MD; Emil L. Fosbol, MD, PhD; Soren L. Nielsen, MD; Gunnar H. Gislason, MD, PhD; Lars Kober, MD, DSc; Christian Torp-Pedersen, MD, DSc

Practice makes perfect

Integrating SimPad into curricula for more practical, hands-on training

Students independently perfect their clinical skills through SimPad at the Univesrity of Stavanger

The Nursing School at the University of Stavanger, Norway has found an innovative way of implementing simulation into their nursing curricula that is positively impacting on students' grades, and above all their confidence and competence in readiness for real patient care.

Disappointing scores in national exams coupled with students' concerns that practical preparation was minimal due to limited access to simulation, the faculty of the Nursing School decided to explore how they might redress this.

"We wanted our students to be better at clinical skills," said Cecilie Haraldseid, Lecturer at the University. "We wanted to give them more training but the challenge was how? We are not a largely staffed teaching department."

The university had recently purchased the Laerdal SimPad to run scenarios with some of their existing nursing manikins but like many nursing schools, timetabling the desired frequency of simulation training to large cohorts of students, (260 in the case of Stavanger) was unrealistic. From discussions between Faculty and Michael Sautter, Senior Manager of Educational Implementation at Laerdal, it was observed that though simulation availability with manikins was limited, students were learning through simulation with role play. The need was to find a way of standardising the learning in repeatable role pay exercises and ensure the learning objectives were achieved.

The school set about building checklists in the SimPad to standardise the delivery of these training exercises. Shortly after implementation, it became quickly apparent that students could be independent in their learning, as they could themselves operate the SimPad and run the scenarios with fellow students without the support of teaching staff. This meant that they could access all the practical training they needed in and outside class time to perfect the required skills.

> *"They could access all the practical training they needed in and outside class time to perfect the required skills"*

"The students are really enjoying it", observes Ms Haraldseid. "It's easier for them to practice and know that they are getting correct feedback from the Simpad. They know they are rehearsing what they need to rehearse. They are getting more confident because through the Simpad we can signalise to the student –'this is what we want you to learn'."

Picking up on the students' growing confidence, Michael Sautter points out, "Practicing to perfection is really key in delivering good healthcare. If you are not confident, you will always shy away from those difficult situations. We want a healthcare workforce that will go into those situations with the confidence and skills to handle them well. What we are seeing at Stavanger University are students who are building that confidence level, allowing them to train to a level where they feel confident and not when a teacher says, 'that's good enough', which is not a very good measure. A good measure is when a student says, 'Now, I understand this. I get it. I can do it and I'm confident.'"

Following up on this training with students who have since moved on to their practical placements, Ms Haraldseid said, "Students have said that the learning they experienced was easily transferrable to practice and useful to them." Summing up, she said, "Students demand new ways of learning. They are used to feedback and getting knowledge fast. What we are putting on the SimPad is no different to what we are teaching or telling them when I am with them. They are just getting it in a different way."

To learn more about SimPad visit:
www.laerdal.com/gb/simpad

Product FOCUS

Preparing for trauma injuries

New SimMan 3G Trauma

Military

EMS

War-zone or road traffic collision - SimMan 3G Trauma is a patient simulator for the specific needs of military and emergency medical teams. Wireless and rugged to withstand the realism of battlefield and disaster scenarios, this simulator has been designed to be an integral part of the education and training drills that will make medical teams ready for action when the time comes … and it's for real.

Relevant

The ability to train in 'real' environments with the limitations and stresses they impose can make learning more clinically relevant and skills retention more profound.

SimMan 3G Trauma's operating system is easy to use. Run standardised pre-programmed scenarios or operate on-the-fly and capture those unique learning moments to improve individual and team performance.

Realistic

SimMan 3G Trauma has extensive features to facilitate fully immersive scenarios for retentive learning of trauma events:

- Amputated limbs
- Pupil dilation
- Needle thoracentesis
- Pulse check
- IV access

Rugged

Built on the successful SimMan 3G platform, the simulator's robustness and durability is tried and tested. The rugged Patient Monitor and Instructor Tablet will push the boundaries of field based scenario training further than ever before.

SimStore is an online library of validated content from simulation experts worldwide. You will find a range of scenarios to download for use with SimMan 3G Trauma by visiting www.mysimcenter.com

Laerdal Services

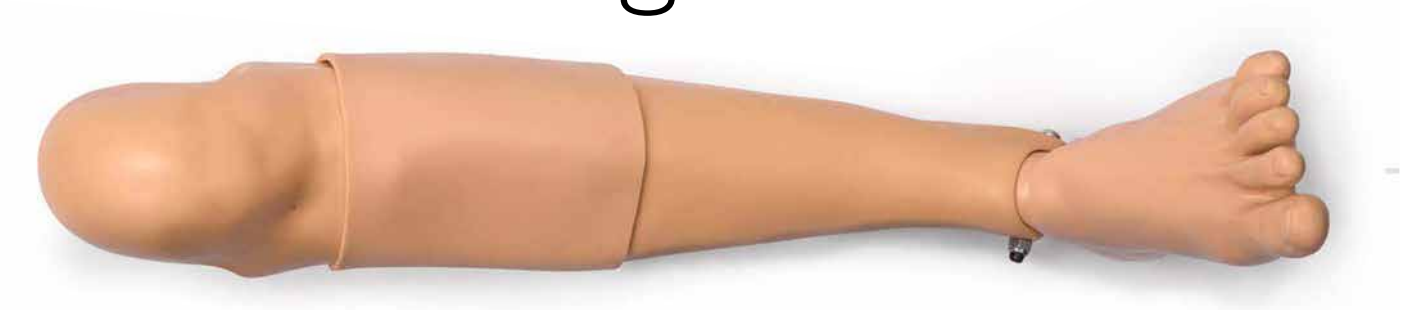
The Laerdal Services Portfolio offers comprehensive Educational Services to support your implementation goals, and extensive Technical offerings to meet your simulator servicing needs. From simulator installation, routine preventive maintenance, product orientation and operation through to helping you realise your learning objectives and incorporating scenarios, Laerdal Services are available to help make your simulation-based training programme a success.

Please contact your local Laerdal representative for full details or contact our Customer Service Department on 01689 876634 or e-mail customer.service@laerdal.co.uk

Our product range is available via NATO

To view NATO stock number list, visit www.laerdal.com/gb/military

Introducing the New Adult IO Leg from Laerdal



The technique of rapid fluid infusion via the intraosseous (IO) route is recommended by the American Heart Association as the preferred method for patient treatment when a venous access line cannot be quickly or reliably established. The new Adult IO Leg task trainer can help healthcare providers, students and staff learn the necessary IO skills to respond effectively to the most serious emergencies.

For use with the follwoing simulators:

- ALS Simulator

- Resusci® Anne Simulator

- Nursing Anne

- Ultimate Hurt
- Crash Kelly
- MegaCode Kelly
- Extri Kelly
- Nursing Kelly

Whether applied as an add-on to an existing manikin, or used as a stand-alone task trainer, the new Adult IO Leg enables intraosseous skills practice to be performed and perfected in a safe training environment.

Make intraosseous skills practice part of your training program. The new Adult IO leg is available in 3 skin tones.

Call your Laerdal representative today for more information on 01689 876634 or email customer.service@laerdal.co.uk.

SIMULATION user NETWORK

http://simulation.laerdal.com

Top 10 downloads

- Dinwiddie - Anaphylaxis Scenario - SimMan 3G Paramedic and EMT
- Dinwiddie - CHF Scenario - SimMan 3G Paramedic and EMT
- Dinwiddie - Foreign Body Airway Obstruction Scenario - SimMan 3G Paramedic and EMT
- Dinwiddie - Asthma Scenario - SimMan 3G Paramedic and EMT
- Stroke with Atrial fibrilation
- Arterial Blood Gas Template
- SimBaby Maintenance Checklist
- Confidentiality Agreement
- SimMan Maintenance Checklist
- SimMan 3G - Recorded FEMALE vocal sounds and speech

Forum Topics

- General
- Discover Simulation
- Events
- Job Postings
- SimMan 3G & SimMan Essential
- SimMom
- SimStore
- SimPad
- SimDesigner
- SimMan & SimBaby
- SimJunior
- SimNewB
- ALS Simulator
- Resusci Anne Simulator

NEW Software

The new 2.4 Software release is now available to download from our website for SimMan 3G, SimMan Essential, SimMan Essential Bleeding and SimMan 3G Trauma. www.laerdal.com/gb/doc/85/SimMan-3G#/Downloads

EDUCATION THROUGH Simulation and Resuscitation News

Improving paediatric outcomes

Caring for paediatric patients is unique. Children's conditions can turn quickly; clinical decision making times are critical. Fast, accurate and coordinated team responses are essential if successful outcomes are to be achieved.

SimPad

SimJunior is a complete simulation solution that will develop both the competence and confidence levels required of paediatric healthcare providers for the challenges of paediatric care.

For further information contact our Sales Team:
Email: customer.service@laerdal.co.uk
Tel: 01689 876634

Dates for your diary

24th - 25th September 2014
The Emergency Services Show
NEC, Birmingham

10th October 2014
Emergency Services Simulation User Network Meeting
Emergency Services Training Centre, Birkenhead

6th November 2014
The Resuscitation Council UK Scientific Symposium
The National Motorcycle Museum, Solihull

11th - 13th November 2014
ASPiH 2014 Annual Conference
East Midlands Conference Centre, Nottingham

For more information about these meetings, please contact our Customer Service Department on 01689 876634 or customer.service@laerdal.co.uk

Reader contributions

If you would like to contribute articles to this newsletter that relate to simulation or resuscitation we would be pleased to hear from you. Please contact: helen.crofts-bolster@laerdal.co.uk

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