Welcome to the 15th edition of our newsletter which once again shows that simulation in healthcare is continuing to grow at pace. We have a number of interesting articles for you to read this issue.

None of us need reminding that we are in straightened times at present which makes our leading story from Dr. Anna Johnson of Derriford Hospital relating to expanding the simulation reach to larger numbers of healthcare staff through telemedicine all the more relevant. My thanks go to Dr. Johnson for these insights.

I would also like to thank Mr. Paul Savage at the Royal National Lifeboat Institution (RNLI) for both hosting and participating in the Laerdal sponsored Pre-Hospital Simulation Symposium in June. The full programme of teaching innovations presented at that meeting are fully reported here.

Dr. Pamela Jeffries from John Hopkins University School of Nursing in Baltimore and a recent Keynote Speaker at the 4th Annual Conference of the Yorkshire and Humber Clinical Skills Network gives us an insight into the development of simulation in nurse education in the States. I would like to thank Dr. Jeffries for giving up her valuable time during her short stay here to take our interview.

There are many more interesting articles here, which I hope you will find informative. Please note the ‘Dates for the Diary’ section on the back page. There are a number of exciting events coming up.

Enjoy the read!

Rosie Patterson
Managing Director
Laerdal Medical UK

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Fingers on the Buzzers
Accessing simulation learning through telemedicine

At the Association of Paediatric Anaesthetists (APA) Scientific Meeting in Torbay in May, Dr. Anna Johnson, Consultant Paediatric Anaesthetist at Derriford Hospital, Plymouth Hospital NHS Trust presented an innovative session exploring the applications of telemedicine through the NHS Network in conjunction with simulation using an interactive live demonstration of a simulated scenario. Using an interactive voting system at discussion points in the scenario, the aim was to show that simulation can be used to engage a large audience and that it can still result in good educational value when traditionally simulation involves much smaller groups.

“Unfortunately, we are now under increasing economic pressures which are significantly impacting on the health economy”, Dr. Johnson said in her opening address. “All trusts are making significant cost improvement plans. We all need to work in a cost effective manner and this includes utilising our SPA time effectively too.”

Simulation has now been validated as an educational tool (1, 2) but traditional methods of delivering simulation can be expensive to provide in terms of faculty to delegate ratio, with time also required for planning and setup. It can also involve travelling long distances which is both expensive in time and travel costs for both faculty and delegates.

At present there can often be limited numbers of participants for each simulation scenario, so with these variable factors in mind, Dr. Johnson and her colleagues explored if there was another way in which larger audiences could interact with simulated scenarios and still result in effective education.

So why telemedicine?
The definition of ‘Telemedicine’ is:
The use of medical information exchanged from one site to another via electronic communications for the health and education of the patient or healthcare provider and for the purpose of improving patient care.

Telemedicine can be used to show a simulated scenario to remote audiences of any size through telemedicine systems that are readily available as medical video conferencing services. These are easy to set up and have no running costs. Scenarios can be transmitted to any number of hospitals and discussions can take place, and perhaps include debriefing from a site remote from the simulated scenario such as a tertiary centre. This has already been put into practice in Canada where MEPA (Managing Emergencies in Paediatric Anaesthesia) simulation courses have been run many miles distant from the Debriefing Facilitator based in Toronto.

Continued on page 2
Dr. Johnson said, “It has been shown that distance learning via telemedicine can be very beneficial but audience interaction is important in order to consolidate the educational experience which, is further enhanced if the audience is involved in the decision making process. Furthermore, care must be taken to direct the learning towards the audience’s specific needs with specific educational objectives.”

Within the NHS video cameras, monitors and sound can be linked directly into the NHS N3 network very simply giving the same HD Quality as from a SKY HD Box. The N3 network is the NHS specific intranet linking all hospitals and has been specifically designed to be totally secure. It readily interfaces with existing analogue imaging equipment and with the new Digital Standards including HDMI and DVI. It is designed to work over the public Internet globally and is totally free.

Dr. Johnson demonstrated telemedicine and simulation in action by running a live on-screen simulated scenario for the viewing delegates who were equipped with voting buttons. At four different clinical decision making points, they could vote on clinical decisions and thus direct the course of the scenario. Voting had to be completed within 30 seconds and the results of the vote were instantly displayed for all to see.

In this case, the learning objectives for demonstrating this scenario were:

- to show that the large audience could be engaged and interact with a distant simulation
- to demonstrate peer review decision making
- to promote discussion

The scenario was set in an Emergency Department and followed the care of an 18 month old child called Harry with stridor. The scenario included an ED registrar, ED Charge Nurse and Anaesthetic registrar. Also included was the child’s mother as ‘a good distractor’!

The scenario was very carefully planned and rehearsed so that no matter the results of the vote were instantly displayed for all to see.

It was apparent during Dr. Johnson’s presentation that the audience had been very engaged and that this type of learning could apply to larger audiences than conventional simulation sessions. Unfortunately, time restraints did not allow time for a full audience discussion to clarify reasons behind some of the clinical decisions that were made but Dr. Johnson’s demonstration did show that the educational role of simulation can be enlarged to achieve specific learning outcomes to a greater number of people at any one time using the telemedicine method.

Dr. Johnson concluded, “The session we ran had excellent feedback and in a time of financial constraints within the NHS, this type of simulation should perhaps be explored more widely to allow the educational effectiveness of simulation to reach larger numbers while at the same time increasing its cost effectiveness.

Acknowledgements:
Dr. Anna Johnson wishes to acknowledge the support and give thanks to her colleagues:
Dr Matt Harper, Dr Kate Holmes, Dr Tod Guest, Dr Cath Ward, Dr Roger Langford and David Singleton from Laerdal Medical

References:
2. Anesthesiology 2010; 112:1041–52. Simulation-based Assessment in Anesthesiology, John R. Boulet* David J. Murray
3. Journal of Clinical Anesthesia 16:144 –151, 2004. Using High-Fidelity Patient Simulation and an Advanced Distance Education Network to Teach Pharmacology to Second-Year Medical Students, Darin K. Via et al

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**RESULTS**

“It was very interesting for the whole audience to see the results of each vote and then for the scenario to follow that course of action”, Dr. Johnson observed.

“As can be seen from these results, each decision was made with about a two thirds majority. For each of these decisions there is no specific ‘right’ or ‘wrong’ answer but a judgement to be made which will depend on the voters’ education and experience. The clinical pathway followed is also dependent on the experience and capabilities of the doctor’s represented in the scenario and how they should proceed in those set of circumstances. These questions and the scenario were designed to stimulate thought and debate amongst the participants resulting perhaps into a clearer understanding of why participants voted in a certain way.”

"It has been shown that distance learning via telemedicine can be very beneficial but audience interaction is important in order to consolidate the educational experience."
In 2010, RNLI lifeguards saved 107 lives, attended 16,664 incidents and aided a total of 18,779 people on British beaches. RNLI Lifeboats launched 8,713 times, rescuing 8,313 people from around Britain’s coastline. To help its casualty carers make critical decisions in the heat of the moment, the RNLI has developed a new type of casualty care training, heavily using simulation. It is proving to make a big difference. In June 2011, Laerdal sponsored an interactive symposium at the RNLI Training College in Poole, to enable around 70 out-of-hospital medical professionals share the benefits of ‘keeping it real’.

Environment-specific training
Paul Savage is Clinical Lead at the RNLI. With 20 years experience as a spinal physiotherapist, and 25 years in maritime search and rescue, he knows that the reality of saving lives and stabilising patients in hostile conditions is often in stark contrast to theoretical classroom training delivered in a basic life-saving skills course.

“RNLI rescuers are volunteers of mixed ability, from a variety of backgrounds,” he explains. “Under the battery of 20 foot waves 17 miles off the coast, in a yacht cabin or at the bottom of a cliff, decisions can be life-critical. A rapid transfer to shore to save a life can sometimes be more urgent than prolonged, excessive spinal management on scene. The pressure of making that decision – of having the knowledge and experience to know what’s best - after only 20 hours of casualty care training is intense and impractical. Previously, too much emphasis has been placed on unachievable diagnosis. To improve patient care and give our volunteers the confidence to make informed decisions, we recognised the need to modernise training for rescue-specific environments. This involved the development of ‘Big Sick, Little Sick’ – symptom-based, decision-making and treatment, wipe-clean check cards with step-by-step methodology – to enable the casualty carer to make the right choice whatever the circumstance. We combine the Big Sick, Little Sick process with environment specific, simulation training to give casualty carers practical experience.”

Practical training
“It’s about making training realistic and bomb-proof,” Paul continues. “Hostile conditions, confined spaces, height, sea, sand and remote locations can present the casualty carer with extreme physical and mental challenges in emergency situations. Now, in the 20-hour training course, we provide an hour of practice per 20 minutes of theory. It’s 75% practical as opposed to 95% theory. We only use kit we will have available on the boat and the last 25% of our training course takes place in the relevant operational environment.”

“We use live casualties, moulage, movement and confined spaces with little light to heighten the reality. Injuries can include severe bleeds caused by arms caught in machinery, spinal and head injuries, resuscitation, airway management, immersion and extrication scenarios. The course is accredited by the RNLI Medical and Survival Committee and has been peer-reviewed and approved by all 15 of the UK’s ambulance services. Formal approvals have been obtained from the College of Paramedics, ATACC and the Royal College of Surgeons.

“To improve patient care and give our volunteers the confidence to make informed decisions, we recognised the need to modernise training for rescue-specific environments.”

To prevent skill fade, we encourage regular training sessions. To make it easy, we issue trainers and stations with scenario cards containing 1000 different medical scenarios,
make-up kits and information on how to set up a scenario, how to brief actors etc. Feedback is good. It is making a difference.”

Multi agency collaboration
Multi agency collaboration is key to successful patient outcomes in pre-hospital rescue operations and the RNLI has an excellent working relationship with police, fire, ambulance and air ambulance services throughout the UK. For several years, Nick Thompson from OxStar Simulation Centre in Oxford has used SimMan in scenarios with Thames Valley and Chiltern Air Ambulance Service. “We started training with a fire and rescue team that specialises in rescue from complex RTCs, rescue at height and in water, and we now work with them and other agencies too, delivering an appropriate level course with multi agency training,” he explained. Both Helimed 24 and Helimed 56 now also use simulation scenarios as part of their recruitment selection process, it is an interesting process to be involved in.”

“Realistic simulation training helps the paramedic trainee identify with the situation and tackle the situation as close to the real life situation as possible.”

Resource Material Required for Paramedic Training
Talking about the progression of simulation training, he says, “Data captured from scenarios can be downloaded and used for evidence based, reflective learning. Whether this is used to drive definitive changes to resuscitation protocols for ambulance teams or used to give confidence to first responders attending home births, there is a real need for more evidence and white papers on the effects of simulation training on paramedics and first responders. A paramedic can attend an emergency situation involving anyone, at any age, in any condition, in any environment. Whether the rescue is 40ft up in a canopy of trees or 40 miles out at sea, the delivery of treatment is not just about care, it’s about logistics. Realistic simulation training helps the paramedic trainee identify with the situation and tackle the situation as close to the real life situation as possible.”

Birth as an unexpected event
Medical emergencies aren’t all about medical events, nor are they always about injury or ill-health. Sometimes, something as normal and as natural as childbirth, especially when it occurs outside of a hospital or midwife led unit might well be perceived as an emergency, especially by the uninitiated.

The fear of babies being born outside hospital is a fairly new phenomenon, as prior to the 1970s, the majority of babies in the UK were

“Demonstrating SimMan 3G”

“Practising logistical scenarios... safely”
At the Ecsel Clinical Skills Training Centre in Torbay, medical students practise simulation training from Year One, and Dartmoor Rescue use the facilities for brain storming, process mapping, task training and scenario training. David Halliwell, Head of Education at South West Ambulance Service, is a keen advocate of moulage, patient simulators and simulation based training in general. Educators at the centre set up a combination of beach, rail, farmyard, road traffic and domestic scenarios at the Streetwise Centre in Portsmouth to help prepare their paramedics for any eventuality. They believe that this kind of training is as useful to the trainer as the trainees.

“Realistic simulation training helps the paramedic trainee identify with the situation and tackle the situation as close to the real life situation as possible.”

“Professor Paul Lewis demonstrates a birth scenario using Laerdal’s MamaNatalie”

Continued from page 3
born at home. Yet evidence suggests that for low risk women, birth at home is as least as safe if not safer than birth in hospital. Nevertheless, regardless of whether you are male or female, fear of birth is prevalent in our society and especially amongst first responders. In a best practice portrayal of assisting a woman to give birth, Professor Paul Lewis, Associate Dean, Midwifery, Bournemouth University, explained that in spite of increasing complexity in pregnancy, for the majority of women, birth has never been safer. If and when a paramedic is required to attend a pre-hospital birth, their priority is the safety and wellbeing of the mother and baby and the question is whether to ‘scoop and run’, or ‘stay and treat’. However, the responder should understand that the expectant mother will be a vital and important part of the decision making process.

“Assisting a woman to give birth is about choices as well as needs; managing expectations and achieving goals wherever possible,” Paul explains. “When midwives are involved, they have a history and relationship with the woman. They are familiar with her pregnancy, her family situation and any complications that are likely to arise. If a paramedic is unexpectedly involved, invariably, they only have the essential information until the arrival of midwifery help, so their priority has to be safe and effective birth of the baby and the safety and wellbeing of the mother. The reality of the situation could be that the mother and baby need to be taken to the nearest hospital rather than their hospital of choice. Similarly, the birth may be imminent and take place in the wider environment, outside of both home and hospital. Simulating births using equipment like Mama Natalie can help build confidence and prepare paramedics as well as midwives to deal with any situation that may arise.”

Mama Natalie
Mama Natalie is Laerdal’s newest addition to its range of patient simulators. Developed to help and train first responders and midwives to safely help women give birth, this innovative model is particularly helpful in developing countries such as Africa. The low-tech, warm water filled manikin enables professional and support staff to practice communication with the labouring woman and effectively manage the birth of the baby, placenta and membranes. It also provides experience around malpresentation and dealing with the serious complication of post partum haemorrhage, a major cause of maternal death in resource poor countries.

Laerdal has pledged to donate one Mama Natalie to a developing country for every one purchased in the UK. For more details, please contact customer.service@laerdal.co.uk

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A National Inter-professional Paediatric Simulation Symposium

Monday 6th February 2012 8am - 5pm

This symposium has been designed to further evolve simulation practice in paediatric care. The programme places particular emphasis on inter-professional learning by bringing together experts in this educational approach to present experiences and examples of innovation.

It is intended that this meeting will offer insights into how and where simulation can successfully be implemented to deliver effective, collaborative and consistent multi-disciplinary team performance to enhance patient care and to create a national inter-professional community of practice.

Venue
Postgraduate Centre, Royal Manchester Children's Hospital
Central Manchester Foundation Trust, Hathersage Road
Manchester  M13 9WL

Delegate Fees
Doctors £75
Nurses £25

To register
Please email christine.taylor@cmft.nhs.uk or Tel: 0161 701 1263

Full programme details can be found at www.laerdal.co.uk

It is anticipated that CPD points will be awarded.
Simulation in Maternity Acute Critical Care

Sharon Hurrell, RM, Dip H Ed, BSc (Hons) in Midwifery Sciences, Practice Development Midwife tells us about the Maternity Acute Critical Care Course (MACC) at Royal Hampshire County Hospital, Winchester:

Since November 2009, a simulation course has been running to update maternity staff on the symptoms, diagnosis and early treatment in the care of the critically ill or deteriorating obstetric mother. This was originally developed for midwives but has recently included the nurses working in Intensive Care Unit (ICU), and anaesthetic and obstetric trainees. This training programme will soon be available to view on an innovation website developed by the Faculty of Health Sciences based in Southampton to share training ideas between Trusts.

A recent report from the Centre for Maternal and Child Enquiries (CMACE) in March 2011, recommended the need for Trusts to provide training for staff to update on the detection and early treatment of care for obstetric patients within maternity services following the rising incidence of cases presenting with sepsis and other associated complications. This aspect of training has been successfully running at RHCH for the last 2 years.

The concept of the development of the MACC study day for midwives had been discussed over a number of years before it finally came into fruition. We formed a multidisciplinary team to finalise and develop the necessary components of the course to ensure its relevance and efficacy for midwives in maternity services. Resources utilised from Trusts undertaking a similar form of training enabled the team to adapt this to the remit required for Winchester.

The team originally involved myself, Susannah Foster, consultant anaesthetist, Lisa Morgan; clinical simulation tutor, Terri Kemp midwife clinical skills facilitator and Katherine Backhouse, obstetric registrar. Components of the course were assimilated to enable staff to adapt current knowledge of the obstetric patient with potential risk factors, and appreciate the resultant deterioration in the maternal condition.

The course takes place in the Trust’s education centre with access to the simulation suite. It was felt staff would benefit from learning in this environment as it enabled them to interact with team members outside of their work base, potentially network as a group, and also allow for enhancement of their knowledge base by including scenario-based teaching at the end of the day to realise their learning.

The overall aims of the day were to allow for early detection and treatment in maternity care, improve communication within all disciplines, develop practical skills and enhance professional judgement, and highlight and appreciate multi-professional collaborative working.

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The study day is comprised of the following topic areas:

- The ABC of care - revisiting the benefits of appreciation of initial and ongoing treatment
- Shock – diagnosis and treatment
- Obstetric session on drugs used in the treatment of the critically ill obstetric patient with eclampsia.
- Documentation / observations session - group work to enable attendee's the opportunity to critique aspects of care in the form of observations and treatment provided. This session includes opportunity to discuss and appreciate the care given and identify whether they would respond differently in the light of new knowledge.
- Scenario sessions in the simulation suite utilising the SimMan (in female form) to enable a marrying of core elements of the day, allowing staff to apply new skills and knowledge within a controlled learning environment. These include management of pulmonary embolism, major obstetric haemorrhage, identification of eclampsia with associated complications, and care of the patient with sepsis.

The advantages of incorporating simulation within the framework of the day are reflected in the positive feedback received by staff. Attendees acknowledge they approach this aspect of their learning with trepidation but realise at the outcome of the day, this has allowed them to put into practice core elements of the training. Learning outcomes identified by staff have included the identification of abnormal adult blood gas results, testing reflexes, effective communication when using the SBAR (2008) pneumonic, and the

Midwife training in the Simulation Suite
The evolvement of Clinical Skills in Nursing at the University of Huddersfield

The lack of ability to undertake clinical skills in student nurses on qualification was identified by the ‘Fitness to Practice’ report (UKCC, 1999), and this debate continues to the present time (the report was commissioned as a result of criticism of the lack of clinical competence amongst newly qualified nurses following implementation of Project 2000 and the transference of pre-registration nurse education into higher education institutions (HEIs)).

During the late 1990’s the West Yorkshire College of Health moved from several locations across West Yorkshire to a new building at the University of Huddersfield. Included amongst the facilities recognising the increasing need to address clinical competence was one large clinical skills room, a smaller paediatric room, a small ‘critical care’ room and a store room. The move also coincided with the development of the Lecturer Practitioner role with the aim of supporting the teaching of essential clinical skills recognising the declining numbers of placements and mentors and the resultant onus for teaching of clinical skills onto the Universities.

The potential of simulation to test both theoretical and practice learning has led to simulation being firmly embedded within the pre-registration nursing curriculum and has had a strong impact upon the assessment process.

The appointment of a new Dean in 2005, Sue Bernhauser saw further investment in the infrastructure which resulted in the development of further simulation rooms including an operating theatre, a physiotherapy and Occupational Therapy room, and an expansion to the critical care room. A year later saw the addition of a Paediatric ward functioning as a flexible space, with further classrooms being developed with wet room space. All rooms had lecterns and doubled as teaching rooms. By 2009 changing facilities were also available for the students to use. The development of the infrastructure, supported fully by the Senior Management Team, coincided with the employment of a number of Senior Lecturers across the four branches of nursing, many of whom had extensive experience in utilising simulation for teaching and learning. These like-minded colleagues began to form a loose alliance which developed into the Nursing Simulation team.

In order to further justify the need for more simulation in the curriculum a successful bid for University innovation fund monies was made. The funding resulted in an evaluation study (Prescott and Garside, 2009; Hope, Garside and Prescott, 2011). A further development saw the introduction of a Practice and Skills co-ordinator, a Senior Lecturer with extensive experience in developing and teaching simulation based modules. This role also came with the remit for development of the Nursing Simulation Strategy and chairing monthly meetings, in facilitation of sharing...
good practice, which feeds into the School Clinical Strategy Group. The participation in this group has been widened strategically across the school as the utilisation of simulation as a teaching and learning strategy is now school wide. Simulated Learning is also incorporated into the Universities research strategy.

“Formal and informal student feedback consistently evaluated simulation positively and called for more space on the curriculum for simulation”

As the integration of simulation into the curriculum developed it was decided to explore how support could be given to reduce the workload of the facilitators. Consideration was given to the part of the role which was not specifically teaching and the technician role emerged. Originally, this role involved the ordering of equipment and consumables, maintenance of equipment, preparation of the laboratories and tidying away after teaching. Initially, a pilot post for a year, there are now two permanent full time technicians supporting the nursing department who are highly skilled and educated to Masters degree level and their abilities are such that they have evolved into a highly valued support to both teaching staff and students.

Formal and informal student feedback consistently evaluated simulation positively and called for more space on the curriculum for simulation, this was also supported by the NMC (2007) decision to credit up to 300 hours of simulation into pre-registration nurse education. In addressing this request a programme of filming of clinical skills DVD’s, funded by a successful bid for monies and the purchase of touch screen computers facilitated programme of filming of clinical skills DVD’s, funded by a successful bid for monies and the purchase of touch screen computers facilitated programme of filming of clinical skills DVD’s, funded by a successful bid for monies and the purchase of touch screen computers facilitated programme of filming of clinical skills DVD’s, funded by a successful bid for monies and the purchase of touch screen computers facilitated programme of filming of clinical skills DVD’s, funded by a successful bid for monies and the purchase of touch screen computers facilitated programme of filming of clinical skills DVD’s, funded by a successful bid for monies and the purchase of touch screen computers facilitated programme of filming of clinical skills DVD’s, funded by a successful bid for monies and the purchase of touch screen computers facilitated programme of filming of clinical skills DVD’s, funded by a successful bid for monies and the purchase of touch screen computers facilitated programme of filming of clinical skills DVD’s, funded by a successful bid for monies and the purchase of touch screen computers facilitated programme of filming of clinical skills DVD’s, funded by a successful bid for monies and the purchase of touch screen computers facilitated programme of filming of clinical skills DVD’s, funded by a successful bid for monies and the purchase of touch screen computers facilitated programme of filming of clinical skills DVD’s, funded by a successful bid for monies and the purchase of touch screen computers facilitated programme of filming of clinical skills DVD’s, funded by a successful bid for monies and the purchase of touch screen computers facilitated programme of filming of clinical skills students have commented on the heightened knowledge base of the students.

A further innovation from within the team was the development of a skills escalator and the Huddersfield Umbrella of Simulation, a way of identifying the multi-faceted strategies that can facilitate learning through simulated practice. Due to developing menu of simulation strategies and the advances in technology the “Umbrella” is currently on the fourth revision. The potential of simulation to test both theoretical and practice learning has led to simulation being firmly embedded within the pre-registration nursing curriculum and has had a strong impact upon the assessment process. The aforementioned skills escalator has supported the way that the testing of clinical knowledge and the ability to transfer this knowledge into ’the doing’ with the development of a menu of assessment which acknowledges the stage of training that the student is at and has led to the introduction of Objective Structured Clinical Examinations (OSCE) in year two and three of the programme. The current assessment OSCE in year three tests both theory and practice and replaces assessment in two modules, (one theory one practice) and combines this in a single assessment, acknowledging the amount of information given verbally by the student through the scenario based assessment, this had led to the removal of the 4,000 word essay which previously tested the theoretical knowledge. This method of graded assessment strategy and the processes involved gained commendations from the external examiner.

“One development which has gained interest from visiting lecturers both nationally and internationally is a recreation of a ward management day for third year students on the verge of qualification.”

One development which has gained interest from visiting lecturers both nationally and internationally is a recreation of a ward management day for third year students on the verge of qualification. This experience is aimed at testing their overall competency, clinical reasoning and decision making, whilst also recognising how the emotional aspects of taking on responsibility for a number of patients can impact (Bland and Sutton 2006). The aim is to make the simulation as real as possible, utilising multiple scenarios and creating authentic patient records such as X Rays, Blood results and ECG’s. Teaching staff utilised their extensive clinical experience to play the role of patients who were complemented by manikins such as ‘simman’ and simulated patients. Interest in this approach has been expressed by local healthcare providers and negotiations are underway to expand this approach and offer opportunities to clinical staff.

This exercise has led to further exploration into the facilitating of simulated learning through the development of a concept analysis (Bland, Topping and Wood 2011) and the inception of a Masters level module ‘Teaching and Learning using Simulation’. This module is aimed at clinical practitioners who teach simulated learning.

The University was selected to host the Annual UK Nursing Simulation Conference in 2010 which attracted an international list of delegates and gave recognition to The University of Huddersfield as a pioneer as using simulation within the undergraduate nursing curriculum. In respect of the investment the University has given to simulation and continued future support a Head of Simulation and Clinical Skills has been appointed. The simulation team were awarded the International Educator / Innovator Award in February 2011. In November 2011, the University also hosted the 4th Annual Conference of the Clinical Skills Network (Yorkshire & Humber) “From no tech to high tech”, reflecting the increasing profile of both organisation and staff in this area.

Future aspirations

Investment into sophisticated ‘manikins’ has introduced new software with abilities to allow further advancements such as the networking of scenario based learning. This development will enable the teaching of large cohorts through live streaming and potentially allow international collaborations.

Numerous members of the team have presented at conferences, both nationally and internationally whilst also undertaking consultancy work internationally and gaining publications in respected journals. Many are also continuing to explore simulation through PhD and Doctoral studies.

Continued from page 8

Continued on page 10
The team will continue to explore these and new developments as part of the vision that will see simulation recognised as the effective educational tool within the overall educational strategy in health.

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The Yorkshire and Humber Clinical Skills Network

Networks are the future of innovating and sharing best practices in simulation. We take a look at the Yorkshire and Humber Clinical Skills Network.

History of the Network
The inception of the Clinical Skills Network (CSN) was a vision of Penny Hilton a lecturer in health at Sheffield. The network came into being in the early 2,000’s and grew slowly to include more than 100 members around the region. Despite many bids from Penny the network was unsuccessful in gaining financial support other than funding for lunches through sponsorship. However, a website was developed and the network functioned well within the financial constraints.

In 2005 the Strategic Health Authority (SHA) commissioned a scoping of the clinical skills facilities within the Yorkshire and Humber region. Following this scoping exercise the SHA decided to invest in clinical skills. It was evident from the scoping exercise there were vast differences within the region of expertise, facilities and funding. In order to bring equity to the region and drive standards for clinical skills and ultimately patient safety the SHA developed a Clinical Skills Executive group. Penny Hilton, the chair of the network at this time was invited to sit on the executive group. It was recognised that the group would be key to the implementation of any strategy developed. However, it was also recognised that a more formal network would be needed and that this would require funding. Following negotiations the SHA agreed to fund three key elements of the network, administration, network meetings and an annual conference.

This support placed the network on a more secure footing. However the network needed to develop further. These events coincided with a change of chair person. Along with a new chair a decision was made to develop other roles to support and guide the network through a steering group. Six individuals came forward to form a strong enthusiastic steering group all with different background, knowledge and strengths. With this strong leadership the network could begin its new journey and fulfil the visions that Penny had for the future.

The role of the CSN steering group
The Yorkshire and Humber Clinical Skills Network brings together clinicians and clinical trainers from across the region. Membership of the forum consists of representatives from all professional disciplines and from a range of healthcare providers including acute care Trusts, mental health Trusts, community settings along with colleagues from higher education.

Meeting the needs of this diverse membership can be a challenge and a network steering group has been established to meet this need.

The steering group was elected by network members and representatives reflect the membership of the network. For example there are steering group members for acute care and community Trusts as well as higher education.

The role of the steering group is to represent the needs and perspectives of members. This is achieved through seeking the views of members on key issues to inform and make recommendations to the clinical skills executive group on key areas of strategic, policy and commissioning. This is achieved through quarterly network meetings where member's views are solicited and opportunity is provided for members to raise any points of discussion.

The steering group is responsible for arranging these quarterly meetings which also serve as an opportunity for networking with colleagues and sharing good practice. This is a key component.
of the clinical skills network and members or guest speakers are invited to present and share initiatives they have been involved in for the benefit of the whole group and ultimately in the interests of patient safety. Members also have the opportunity to communicate with each other between meetings and many have used the network to post questions for other members or to seek information.

In 2010 a survey was undertaken of the members. The outcome of the survey was used to guide the future developments of the network. Moreover it identified some of the development needs of its members. From 2011 workshops were introduced to support the professional development of its members, to assure the quality of the training they provide and improve engagement with learners. We hope this will develop over time and welcome any suggestions for workshops from our members.

Quality assurance of clinical skills activity is another key component of the work of the steering group and in response to member’s requests sessions have been arranged to meet the development needs of clinical skills trainers to assure the quality of the training they provide and improve engagement with learners.

Another area of quality assurance being explored by the steering group is agreeing a core standard for clinical skills training packages so that these can then be shared across the region. This is in recognition of the duplication of effort which takes place in developing similar programmes and will also contribute to the clinical skills passport approach which means staff will not have to undertake different versions of the same course as they move between Trusts.

The culmination of the activity undertaken by the network is the annual clinical skills network regional conference which the steering group plans and organises. A topical theme is chosen by the steering group who then review submitted abstracts to agree which will be presented while also ensuring a wide range of delegate interests will be addressed. This conference has this year become international with guest speakers from the USA and Switzerland funded through sponsorship.

Future status of the network is in transition financially, due to the current financial position and the changes that are proposed to the Strategic Health Authorities. The steering group is currently exploring how future funding of the network will occur and have made initial steps for securing the future through the conference, which this year for the first time is fee paying. The steering group is committed to ensuring that annual fees are kept to a minimum, are inclusive of attendance at the annual conference and that members receive value for money.

**Clinical Skills Network Website**

www.clinicals skillsnetwork.com

The network website came about following the realignment of the Yorkshire and Humber Clinical Skills Network Steering Group approximately two years ago. The network wanted a way to keep members informed of up and coming network meetings, relevant conferences, study days, training programmes within the region etc. and a website seemed the obvious solution. An IT consultant was hired to put together a template using a content management system and the details are then added by steering group members. While the site is quite basic at the moment and is primarily used for disseminating and sharing information, it has the potential to become much more complex as the network evolves. Future plans will include a member’s database allowing ease of administration, subscription reminders and the ability to send out mass newsletters. Recent additions to the site include links to both Facebook and Twitter, allowing for linking to social networking sites and mobile media formats. It is hoped that over the coming months, the site will also become more interactive, including a shout box, chat room, members to send in information to be posted on the site. Further possibility is adding a repository of re-usable learning objects i.e. lecture notes, PowerPoint slides, presentations and other multimedia items relating to clinical skills education and training is yet another possibility. Discussions are underway to look at the addition of a section focusing on simulated practice, where again information can be shared about setting up a simulation suite, developing scenarios, moulage tricks etc. If you would like to contribute to the website by sharing resources, advertising clinical skills events, job vacancies etc. or simply have an idea for how the site can be improved, please contact Ann Sunderland, Senior Lecturer at Leeds Metropolitan University by email at A.Sunderland@leedsmet.ac.uk

**Future aspirations of the network**

The Steering group hopes above all for a period of growth and maturity which will see:

- Further consolidation of the Steering group whose individual skills, strengths and attributes are beginning to emerge.
- Further development of the website.
- To develop their portfolio of publications.

Our first article was published in August this year: Barrott, J., Hope A. (2011). Developing an equipment library for clinical skills and simulation training. British Journal of Community Nursing, 16, No 7. 342-344
- To ‘twin’ themselves internationally. In effect associate to a Network in another country as a means of further development and recognition of good practice.

The Steering group consists of:

- Karen Shaw, Clinical Skill Facilitator, Rotherham NHS Foundation Trust, (Chair, and Executive group member),
- Gill Hinton, Doncaster and Bassetlaw (Vice Chair), Longstanding Steering group member
- Angela Hope, Senior Lecturer, Practice and Skills Coordinator, University of Huddersfield, Previous Vice Chair, Executive group member, Conference lead.
- Debbie Myers, Leeds Primary Care Trust Ann Sunderland, Senior Lecturer, Leeds Metropolitan University (Web site lead)
- Joanne Barrott, Clinical Skills Regional Manager Leeds Metropolitan University, Executive group member
- Jane Coupe, Senior Lecturer, University of Bradford, Long standing Steering Group Member
- Wayne Chapman, Administration Secretary for the network, Doncaster and Bassetlaw.
The Dow Clinical Simulation Suite

Based in Ninewells Hospital, The University of Dundee Clinical Skills Centre is a purpose built multiprofessional facility which was first opened in 1997. The University of Dundee has long been at the forefront of developments in clinical skills education and has built on this reputation by incorporating health information technology systems into education and training programmes for healthcare professionals. Clinical skills experts from the Schools of Medicine, Dentistry and Nursing & Midwifery, from both undergraduate and postgraduate arenas have contributed to the development of the Centre and its educational programmes.

The University of Dundee provides an ideal setting to explore and evaluate new ways of working for organisations as a leader in quality improvement and patient safety. It has made a significant investment in using simulation to prepare practitioners and to identify the best value in relation to resources.

Simulation is used throughout the undergraduate curricula in the Schools of Nursing, Medicine and Dentistry and is introduced from the early stages of all curricula to contextualise learning in preparation for practice. The Clinical Skills programme in Dundee is designed to increase in complexity appropriate to the students’ own professional development.

The centre has a wide range of manikins from resuscitation training models through to SimMan 3G. These are used in teaching technical and non-technical skills in outpatient and ward scenarios. All final year medical students at Dundee have to undertake a 20 minute Ward Simulation Exercise and submit this as part of their final portfolio of evidence. The Ward Simulation Exercise assesses a student’s ability to prioritise competing demands, make safe decisions and manage the care of patients in a realistic clinical environment. To increase authenticity volunteer simulated patients are trained for each exercise. At Postgraduate level simulation is used in the delivery of pharmacy and optometry skills courses and as part of the Doctors in Difficulty programme to provide structured analysis and feedback on performance.

The centre still uses a mixture of volunteer patients and simulation manikins but the use of SimMan 3G in HDU situations is increasing as familiarisation with the product and its abilities increases. SimMan 3G’s high fidelity features mean that the manikin can be used for a wide range of medical conditions and scenarios.

Officially opened on 25 November 2011, the new Dow Clinical Simulation Suite, which is located within the Clinical Skills Centre, provides a safe learner centred environment to enable students to acquire standards of skills using simulation. Funded by the Dow Memorial Trust, the University and NHS Tayside, The Dow Clinical Simulation Suite creates a realistic environment that replicates the patient journey from GP to ward admission, intervention and acutely unwell episodes. With an outpatients area, two ward areas and a high dependency unit, the facility offers students valuable exposure and training in different simulated healthcare environments. Through regular exposure, medical students have come to accept simulation training as part of their learning process and have enthusiastically embraced this new facility. Each year, over 2000 students benefit from using the centre regularly.

The Dow Clinical Simulation Suite provides a working facility which can test the various e-health systems used in the patient journey within the NHS, with resources to train students on new e-health systems. This will build upon the track record of the University of Dundee in the design, development and implementation of web-based healthcare solutions.

The Dow Clinical Simulation Suite is also equipped with the technology to provide live observation and instruction from a remote control room, together with the facility to record, play back and analyse scenarios for debriefing which is proving to be an essential part of the training exercise.

Kevin Stirling, Lecturer in Simulation at the University of Dundee, says: “The Dow Clinical Simulation Suite has allowed us to develop a range and complexity of simulations that we deliver in the Clinical Skills Centre. This new suite enables us to deliver scenarios that are relevant to the participants and provide valuable debrief, feedback and analysis.”

Kevin concludes: “The ultimate aim for the Dow Clinical Simulation Suite is to improve patient care through preparing students for clinical practice within a realistic mini healthcare environment. Trainees now accept simulation training as a key part of the learning process and here at the University of Dundee we are really pioneering new methods in Scotland.”

Laerdal and the Association for Simulated Practice in Healthcare (ASPIH) are hosting a two day regional simulation event in the Dow Clinical Simulation Suite on Friday April 27th and Saturday April 28th 2012. This event will focus on enhancing and improving education using simulation. For further information please go to www.aspih.org.uk
At the recent Yorkshire and Humber Clinical Skills Network Conference at the University of Huddersfield on the 2nd November, we caught up with Dr. Pamela Jeffries from John Hopkins University School of Nursing (1) in Baltimore, Maryland to get a snapshot into simulation for nursing education in the States; its roots, its challenges, how it’s evolving and where it’s going.

Dr. Jeffries is both nationally and internationally known for her research and work in developing simulations and online teaching and learning. Her expertise in experiential learning, innovative teaching strategies and developing new pedagogies, has led to her becoming the lead in a number of research projects including a national simulation study funded by the National League of Nursing (NLN) and the Laerdal Corporation, as well as research to facilitate the development of web based courses for faculty development in simulation and a national simulation innovation resource centre.

She has published the widely referenced textbook *Simulation in Nursing Education – From Conceptualization to Evaluation*, now in its third edition and recently has co-authored *Developing Successful Healthcare Education Simulation Centres – The Consortium Model*, which pays particular attention to the development of faculty and strategic methods to ensure long term sustainability of simulation programmes.

**When did simulation start to take shape in Nurse Education in the US and what triggered its interest?**

I have to reflect back to early 2000. Nursing leaders in their respective organisations around the US as well as internationally were looking at the outcomes of nursing education. We were asking ourselves - are we producing nursing graduates that are fit for clinical practice across the various disciplines.

In came simulation as what I would call a new clinical re-design. The simulation pedagogy is very student centred. It immerses students in realistic, clinical scenarios giving them the opportunity to really develop that autonomy, that independence, those critical thinking decision making skills that we hadn't really been doing in our traditional clinicals. These opportunities are just priceless and they were lacking in our traditional approach. Simulation allows students to think as a nurse. We want them to be able to delegate, prioritise, do hand-offs, understand interdisciplinary team dynamics, be confident and effective communicating back and forth. Many times we have been graduating students without these skills sets. We thought they had them but in reality, they were not as good as we thought from the education we were giving them.

**As an early adopter of simulation, how did you begin applying it as an educational tool and explore its value within the curriculum?**

At that time, patient simulators were being purchased but there was a lack of knowledge on how to use them or how to incorporate them into the nursing curriculum. Simulation was in its infancy. I was reading everything but research back then was sparse and fragmented. We didn't
Continued from page 13

know what simulations were like in nurse education or how they might be integrated. There was certainly no standardised definition, so between 2003 and 2006 we embarked on a national research study which was funded by the NLN and Laerdal Medical. We not only defined and developed a framework for simulations but we looked at the process. We explored running simulations for various time periods, conducted the debriefing at diverse timeframes to explore what practice would work best. We developed the tool to measure these processes and we built up a body of information that gradually shaped guidelines.

I am also a great believer in learning from others. I work with colleagues from all around the US and internationally. Wherever there has been adoption of the simulation pedagogy, I assess what these educators have done, how they deliver the simulation activities, how simulation is integrated into the curriculum or hospital education and explore what models work best. There are many approaches to implementing clinical simulations; what is important is to make sure the method is helping educators to achieve the most effective learning outcomes.

What would you say were the key milestones that were pivotal in accelerating the momentum of simulation in nurse education?

In the States, we have national organisations that are helping greatly to move simulations into nursing education. As I have mentioned, the NLN has funded many studies and they have really helped to promote the science of nursing education, particularly the simulation pedagogy. The research studies have provided quality information on best practices, a worldwide Simulation Innovation Resource Center (SIRC – www.sirc.nln.org) and courses for faculty development.

INACSL (International Nursing Association for Clinical Simulation) has also contributed enormously by facilitating conferences and valuable research which have culminated in professionally recognised standards of simulation practice for us to follow.

The ISSH (International Society of Simulation in Healthcare) has also done much in recent years to propel simulation across the disciplines. Again, they have contributed greatly to the research mission and the inter-disciplinary nature of the audience they serve has created fabulous networking opportunities.

“In the healthcare world today, it is so important that academics on the nurse education side work with their clinical health partners because we no longer should be working in silos, but together.”

The AACN (American Association College of Nurses) has done a great deal of work supporting the integration of technologies such as simulations into curriculum. The ‘AACN Essentials’ are standards that a programme curriculum is built around. The National Council State Board of Nursing (NCSBN) has launched a major multi-site, multi-million dollar, three year clinical simulation study that will be investigating how much simulation can be substituted for real clinical time. As part of this two year study, we are looking at clinical competency and outcomes and gathering evidence to determine how much simulation time within the curriculum is warranted – what is effective and what is not in preparing our graduates for the work they will do.

The study will also look at third year following cohort of students from the participating ten schools of nursing once they have graduated, to assess transition to practice evaluating nursing knowledge, skills and clinical competency. In short, has simulation impacted on their clinical competency and transition to practice when they graduate.

How closely do you work with your healthcare providers when you design simulation scenarios?

In the healthcare world today, it is so important that academics on the nurse education side work with their clinical health partners because we no longer should be working in silos, but together. We need to bridge this gap and to give you some examples, when we write scenarios, we have them peer reviewed by our hospital partners. Are they accurate, are we including the right innovations that are going on in the hospital, can we write scenarios together where we can use them on the nursing
education side and the hospital can use them for their new graduates. We aim to make them multi-purpose and look for similar opportunities to work not just with other healthcare disciplines but with different levels of staff working together, developing effective, high-functioning, professional healthcare teams.

**Is simulation being used for professional certification to allow new graduates to practice?**

In the States, simulations are mostly being used as a teaching learning intervention, but taking this one step further, some schools of nursing are using simulation for evaluation of students. They are performing what are called ‘high stakes simulations’. In other words, you have got to pass the simulation and meet these competencies before you graduate. This is not nationwide but I do think we are moving toward the possibility of having a competency based national test.

Secondly, we have to ask ourselves from the hospital side, should graduates be put in a simulation before you hire them to look at their skills competency and critical thinking skills. Let’s say I want to be a critical care nurse, and you put me in a critical care simulation, can I perform the relevant competencies that are needed to work in that unit? If not, maybe my orientation needs to be tailored to X, Y and Z to get me competent before I start working. I think you will find hospitals using simulation more for this purpose. It’s not there yet. Some are using it but probably small numbers.

National Council are looking into this now. I think what is going to come is that when students graduate they will get a restrictive licence and then will have to go through residency, go through high stakes simulations and then get their professional licence. In other words, it’s all about competency, professionalism and safety. Currently, medicine requires medical students to pass skills competency exams, many based on simulations to progress on in medical school. Nurse educators are looking at this model of assessment to see if this practice should also be replicated in nursing.

“Nursing schools understand the importance of inter-disciplinary and inter-professional education (IPE).”

**How do you think students might feel if they have to pass a competency test to get their licence?**

Nursing students for the most part like simulations. They know simulation is exploding and some students judge prospective nursing schools on the basis of whether they have a simulation offering or not. They want this type of training because they feel they will be better trained with simulation rather than without it.

A lot of investment is put into training a nurse. Some literature cites that the preparation of a new graduate can be anywhere from $40K to $60K. So we don’t just want them to be the best nurses they can be but we want to retain them. Again, look at the literature to understand why nurses leave the profession - in many cases they feel unprepared, they don’t feel safe, they feel stressed and so they leave. That is a big problem. So we don’t just want to find ways to retain them but we want to make sure they are the right fit for that particular hospital. So, can simulations help? Possibly. Through simulation you can see if they have the required skills - can they critically think, can they put the pieces together. They might not be able to do everything but you can see if they have the necessary skill sets to be that critical thinker, that knowledge worker and be able think on their feet.

**Is inter-professional education a component of undergraduate nurse education?**

Nursing schools understand the importance of inter-disciplinary and inter-professional education (IPE). Simulation creates a wonderful opportunity for IPE. We recently had a simulation with three medical students and our senior nursing students and the principal focus was communication and teamwork.

“If a nurse does not know how to question an order in a situation that she feels to be wrong, then I think we as educators have failed her.”

All healthcare workers need to be able to communicate effectively in their respective roles and teams. To me this is all about the culture of safety. Teamwork, values, ethics, communication, roles and responsibilities are all part of this culture. I think it is up to nursing educators to give our students tools, so if there is a disagreement between health team members they can call for a ‘time out’. If a nurse does not know how to question an order in a situation that she feels to be wrong, then I think we as educators have failed her. The tool we teach our students has an acronym. It is CUS – C stands for ‘I am concerned’, U is ‘I am uncomfortable’ and S is for ‘This is a safety situation. I want time out’.

Typically nurses have graduated and they have never even talked to a physician. We can’t have nurses and physicians not knowing how to talk to each other. IPE education needs to start early so that the concept of the ‘team’ is clearly understood and that it is all about the patient and quality of care. Simulation can deliver the necessary experiential learning to facilitate this working process which should be regularly revisited throughout their respective careers.

**Do you think a standardised simulation curriculum will emerge in undergraduate nurse education in the US?**

Simulation in Nursing Schools is very fragmented. 87% of schools surveyed just last summer by the National Council State Board of Nursing said that they were embarking on bringing simulations into their curriculum. Now that could mean one course, five courses, one simulation or ten simulations – it’s very variable. With that in mind, it is hard to set a standardised simulation curriculum. But the current three year study I mentioned earlier has been constructed with high dose simulations to identify best practices - what works, what doesn’t - Continued on page 16
and this information will inform how we conduct simulations in the future. To ensure the integrity of this study, we have trained over 54 simulation specialists in all 10 participating schools to control how simulations are delivered, how debriefing is conducted and competency checks to ensure that simulations are being delivered in a quality, appropriate manner that we feel is the best approach. Now, is that a standard we could adopt including the training and the delivery? Possibly. But in the States, there are no standards on simulations. I do think standardisation is needed. It will come to that and with that will come policies and guidelines.

**Are the budget cuts compromising the pace of simulation development that we are seeing in the US?**

The economy is a big challenge to the implementation of simulation into our nursing schools – shoe string budgets, no budgets – but simulation is not about the technology, it’s about the pedagogy. I have done simulations with students role playing the patient. You can achieve a great deal with very little equipment.

And we have many educators and research directors on the side questioning the value of simulation. Is it making a difference in our clinical practice? Simulation research is embryonic. We have many examples of research showing simulation improving outcomes in specific procedures or tasks but the bigger picture of integrating simulation throughout the 4 semesters in nursing is certainly not there yet. But then we do have plenty of evidence to show we currently don’t consistently produce good graduates! So we are keen to see the results of the National Council study which will be completed in May of 2013 (the first two years).

But if we already have examples of procedural simulations that can save a life or team simulations that help to cut the healthcare costs through creating a workforce that works together more efficiently and effectively, is that not good value? You can put a price on most things but how do you put a price on saving a life?

**References.**

1. In the 2012 edition of U.S. News & World Report ‘America's Best Graduate Schools’ now places the John Hopkins School of Nursing Master’s Programme among all accredited nursing school graduate programmes.
Improving outcomes for the mother and child: Laerdal introduces SimMom

Addressing the needs of both the mother and child through the birthing process defines the latest addition to Laerdal’s portfolio of patient simulators – SimMom. Designed to build skills competence in specific obstetrical clinical procedures as well as optimising effective team performance during both routine and complicated births, SimMom is now available for demonstration appointments.

50% adverse outcomes are preventable with better care (1)

This statistic is just one of many that can be cited in the field of obstetrics and is indicative of a theme that resonates throughout many international healthcare systems. Equally evident from a broad range of research into these suboptimal outcomes is that common contributory factors include: confusion in roles and responsibility, lack of cross monitoring, failure to prioritise and perform clinical tasks in a structured, coordinated manner and poor communication and lack of organisational support. (2)

Simulation in the arena of other healthcare disciplines such as anaesthesia, nursing and paediatrics has been demonstrated to be a valuable training component in preparing both undergraduates and professionals in terms of their on-going individual development and contribution to a multi-disciplined team.

SimMom and Progressive partnerships

Developed in partnership with Limbs and Things, SimMom combines the best of both companies’ experience in healthcare simulation. Built upon the success of Limbs and Things’ market leading PROMPT birthing task trainer (now part of the Laerdal range) and Laerdal’s full body ALS simulator, SimMom gives obstetrical education both anatomical accuracy and an authentic simulation experience that together makes for unique learning in preparation for caring for the mother and child in difficult births.

Successful simulation requires more than just the simulator, which is why pre-programmed scenarios that support curricula needs as well as continual professional development will be available with SimMom. A total simulation solution complete with ready-made scenarios, educational and technical support, SimMom along with her precursory task trainers will help to advance obstetric training for the improvement of patient outcomes.

References.
CEMD – Why Mothers Die. 1998
CEMACH – Saving Mothers Lives 2007

2. Joint Commission of Accreditation of Healthcare Organisations; Preventing infant death and injury during delivery. 2004
Lewis, The Confidential Enquiry into Maternal and Child Health – CEMACH
Saving Mothers Lives: reviewing maternal deaths to make motherhood safer. 2007

For a demonstration of SimMom, please contact your local Laerdal representative or our Customer Service Department on 01689 876634 email: customer.service@laerdal.co.uk
www.laerdal.co.uk
Simulation in the Foundation Years

The KSS Deanery looks to further integrate simulation into their FY1 and FY2 training programmes.

On the 4th October 2011, the Kent, Surrey and Postgraduate Deanery along with the South Thames Foundation School (STFS) and SimNet, came together at the Laerdal Training Centre in Orpington for a ‘meeting of minds’ for the first of what is intended to be an annual seminar to discuss Simulation in the Foundation Years.

In line with the Chief Medical Officer’s (CMO) 2008 annual report Safer Medical Practice: Machines, Manikins and Polo Mints, which recognised the important role simulation could play in patient safety within the NHS, the UK Foundation Programme (UKFPO) has also recognised and committed to simulation as part of its educational delivery. Along with the Foundation Curriculum Guide 2010, which makes specific reference to areas where curriculum outcomes can be achieved with simulation, there was plenty of scope to discuss ways in which simulation could and should be further developed across the South Bank Foundation School for its FY1 doctors and in particular FY2 doctors.

In his opening address, Dr. Martin Parry, Associate Director of the STFS welcomed the 45 delegates from hospitals and medical schools across the Kent, Surrey and Sussex Deanery, to outline where the STFS currently stands with simulation training for its Foundation Years Doctors and where it wants to get to. “Currently all FY1 doctors within the STFS have a simulation experience and it is a requirement for FY1 sign-off” he stated. “However, not all our FY2 doctors currently have exposure to a simulation episode. 2011 - 2012 will be the first year that we have funding for a simulation session for every FY2. Our aim is to make this a sign-off requirement for 2012-2013.” Commenting on the challenges for FY2 simulation at local Trust and Foundation School level, he continued, “The experience needs to match the expectations and learning needs of FY2s whilst also being sustainable within the current period of financial restraint. We need to explore how best to gauge content, learning outcomes and non technical skills training with cost, faculty release and sustainability.”

The day’s programme included keynote presentations and workshops to explore these themes. Opening keynote speaker, Professor Guillaume Alinier from the University of Hertfordshire and currently working with the project team of the Sidra Medical and Research Centre in Qatar on the development of their new simulation facility, offered insights into the global context of simulation in healthcare. Likening its adoption internationally to a revolution, he cautioned that for newcomers to this educational approach, there is no written template to copy and the development of simulation into the various healthcare channels was not a ‘one size fits all’ concept. Models of simulation programmes around the world are varied and while there is a great deal of enthusiasm to embrace simulation into healthcare, challenges such as cultural (social, professional and institutional), funding issues and lack of understanding of simulation teaching itself were all common contributory factors that inhibited its full potential. But even so, international simulation forums such as IMSH (International Meeting of Simulation in Healthcare), ASPIH (Association for Simulated Practice in Healthcare) and IPSSW (International Paediatric Simulation Symposium and Workshops), have all played a crucial, collaborative role in advancing simulation than would otherwise have been the case if simulation had developed in silo projects. Moreover, such cross country collaboration has shown that even with the common challenge of funding constraints, successful simulation programmes can be realised with the most basic of equipment. Recalling a recent workshop he facilitated in Mauritius, Prof. Alinier said, “Low tech simulation still yields great educational outcomes with appropriate briefing and adaptability. With the right frame of mind, orientation to the environment and setting the right expectations of participants (ie. stating ‘this situation is real’), you can achieve a lot with basic manikins.”

Dr. Angie Nunn from Barts and the Royal London shared her experiences in developing and delivering high quality simulations for F2 doctors. Having already established a simulation training programme for F1 doctors in 2005, additional funding came through for a F2 programme in 2006 and since that time, Dr. Nunn and colleagues have delivered 188 courses to date.

In designing the F2 programme, Dr. Nunn pointed out, “There is very little reference literature specifically for F2 training so we essentially started with a blank sheet. We wanted to build on our F1 programme and develop on learning outcomes already achieved by introducing greater complexity to scenarios already used. In adopting the spiral curriculum model as a framework, more basic clinical problems given in the F1 training required a different approach for F2 but it was important to mirror the progression to ensure connectivity between the years and transference of skills from the classroom to clinical practice.”

While mapping scenarios to clinical episodes defined in the F2 curriculum, it was the context of the clinical task that determined the main learning objectives of the scenario. “Learners were deliberately challenged outside of their comfort zone”, Dr. Nunn said. “They would be the sole decision makers. Their nurse would be an expert
practitioner and equal in the professional partnership requiring them to develop sound communication, listening and management skills. They would need to perform within a multi-disciplinary team and manage accordingly. They would need to display both their professionalism and professional values. We would give them more challenging scenarios where patient characteristics might present extremities of age, mental illness or pregnancy. We might make the scenario deliberately ambiguous. Ultimately the scenarios were designed for the F2 trainees to start becoming informed professionals and think critically in discussion with others.”

Post-scenario debriefing was designed to be as challenging as the scenario. “We felt that reflective debriefing was as important as clinical learning,” Dr. Nunn continued, “and so we framed the personal reflection element of the debrief as a skill in itself.”

“Ultimately, the scenarios were designed for the F2 trainees to start becoming informed professionals and think critically in discussion with others.”

To ensure that the programme fulfilled trainee needs, questionnaires were circulated and feedback was very positive. Asked whether they felt prepared for clinical practice following their simulation training, nearly 65% of F2 respondents said ‘yes’ in contrast to 38% of fifth year medical students and 50% of F1s. Asked how they applied their simulation experiences to clinical practice, the management of acute illness was the primary response, followed by applying the basics (ABC + MOVE), working in a structured approach, effective team working and improved communication.

In summing up, “Less is more”, was Dr. Nunn’s key message. “Concentrate on key themes and repeat.”

**Training to excellence**

Dr. Ian Curran, Dean of Educational Excellence and Head of Innovation shared his insights into the value of simulation in professional development. “What is excellence?” he asked. “We are all familiar with the ‘See one, do one, teach one’ approach but should this be the way in which we introduce healthcare professionals into the workplace?” Drawing parallels with the aviation industry where flight safety is paramount in all aspects of a pilot’s training, he said, “We are not as safe or as good as we think we are. We need to train to excellence. Simulation can help.”

In highlighting the value of simulation to support training to excellence through the STeLli project, which was designed exclusively to invest in the healthcare educational infrastructure of London, 206,000 of the region’s healthcare workforce have received training which included 60,000 multi-disciplinary and interprofessional simulation based activities. 2,500 facilitators have been trained in behavioural debriefing over 92 dispersed sites, including 18 new simulation centres. He cautioned that while equipment investment was important, investments into faculty development were even more so.

Simulation can take many forms and Dr. Curran pointed out activities such as e-learning, web forums and use of simple skills trainers were all valid simulation learning methods. “Simulation needs to be cognitively effective, not ultra realistic and through ensuring that this learning approach is integrated throughout undergraduate, post graduate, inter-professional education and uni-professional development, the steep and dangerous part of the learning curve will be moved away from patients and surely, that is a good thing.”

The day’s programme also included scenario development workshops facilitated by Mr. Olly Rawding, Medical Clinical Skills, University of Surrey & Royal Surrey County Hospital NHS Trust and Nicholas Gosling and Huon Snelgrove from the Clinical Skills & Simulation Unit, St. George’s Hospital NHS Trust. Both workshops engaged participants to consider and explore that when constructing a simulated scenario, it needed to clearly reflect tangible learning outcomes that could be taught effectively through the scenario as well as be clearly assessed at its conclusion.

Dr Manisha Shah, FY2 Lead at Medway Maritime Hospital presented how their team have been maximising the use the patient monitor function of the SimMan 2 software in a classroom context for new trainees in anaesthesiology. Developing a critical incident patient scenario for trainees to observe the physiological parameters on the graphical user interface (GUI) in a classroom yielded a number of learning opportunities prior to a full-scale simulation using the patient simulator. Observations and treatment options could be discussed and implemented with immediate visual GUI feedback to the consequences of clinical decisions made. Use of the GUI function for teaching is still being evaluated but early indications suggest that the trainee experience is positive.

Dr. Peter Isherwood, Specialist Registrar in anaesthesia and intensive care medicine has co-developed a multidisciplinary, high fidelity, non technical skills simulation course for the Intensive Care Department with Guys and St. Thomas’ NHS Foundation Trust. The course, which has run for 18 months to date and trained over 100 ICU doctors, nurses and physiotherapists, has been developed to improve patient safety by improving communication skills within clinical teams and human factors awareness.

In his closing remarks, Dr. Martin Parry thanked the speakers for sharing their insights and experiences and Laerdal for hosting the meeting. “We look forward to the future exploration of simulation at the South Thames Foundation School and meeting again next year.”
EDUCATION THROUGH Simulation News

Making Simulation Easier

WATCH THIS SPACE!

Dates for your diary

6th February 2012
National Inter-professional Paediatric Simulation Symposium
Royal Manchester Children’s Hospital

16th March 2012
Royal College of Midwives Conference: Managing Emergencies in Child Birth Resuscitation Skills for Midwives
Cavendish Conference Centre, London

27th - 28th April 2012
ASPIH / Laerdal Simulation Meeting: Using Simulation to Enhance and Improve Education
Clinical Skills Centre, Ninewells Hospital, Dundee

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 we would be pleased to hear from you. Please contact martin.clarke@laerdal.co.uk or helen.crofts-bolster@laerdal.co.uk

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