The use of simulation in training and education is nothing new. While it traditionally lends itself well to the craft specialities there is considerable work being done with human factors training, team building and leadership scenarios.

Recently there has been a real focus on this topic within the surgical educational world. It has been recognised that while there are pockets of excellence in simulation training, more organisation and structure is needed to allow equal access to resources for all trainees. A national directive has been issued for all deaneries to map Simulation training to the curriculum and funding has been made available for the setting up of regional resources.

In Wessex, led by Head of the School of Surgery Miss Karen Nugent and Simulation Fellow and T&O registrar Miss Joanna Higgins, the following pioneering projects are underway:

- Mapping of Simulation resources across deanery
- Laparoscopic training boxes for all Core Trainees
- Centrally located dedicated Simulation room for the whole deanery
- Formation of a deanery cross specialty simulation committee

Also watch this space for multi-disciplinary Major Trauma Team Simulation Training done in-situ from helicopter to theatre and beyond…

This is a really exciting time for Simulation for Education, which is why we wanted to dedicate a whole edition of our newsletter to it. We hope you enjoy it and that it show cases some of the work being done around the deanery by our Medical Education Fellows.

Miss Katherine Pearson

For more information on any of the projects included or to find out more about how to get involved, please contact kat.pearson@gmail.com.

The Medical Education Fellows are led by Dr Rosie Lusznat - Associate Dean for Educational Development Health Education Wessex and the trainee Leads Dr Sophie Price and Mr Mark Szymankiewicz.

Further details about our current Fellows or how to apply for the role can be found at:

http://www.wessexdeanery.nhs.uk/medical_education_fellows.aspx or by contacting julie.worthington@wessex.hee.nhs.uk, PA to Dr Rosie Lusznat.
Surgical Simulation in Ophthalmology

The challenges

Ophthalmology is a small but diverse surgical specialty. All trainees learn to perform cataract and other operations as part of their training with a requirement to perform a minimum number of cases before CCT. Performing any procedure on the eye runs the risk of complications that can lead to poor visual outcome with the worst case scenario being blindness. As a microsurgical skill the surgeon is only millimetres away from causing one of these complications, posterior capsule rupture. This makes learning the process for trainees and trainers a nerve racking experience, particularly in the early stages. In addition the patient is often operated under a local anaesthetic and able to hear everything that is going on. These two conflicting issues of balancing patient safety with training will be familiar to anyone involved in medical education.

A solution?

The use of surgical simulation is becoming one way of approaching this issue. Nationally the Royal College of Ophthalmologists has introduced a microsurgical skills course, which all trainees are required to attend. This has evolved from a wet lab based course to include the use of a computer simulator called the EyeSi which is based on flight simulator technology and provides a very realistic experience. We have been fortunate that one was purchased and installed at Bournemouth Eye Unit a few years ago as a result of Deanery and local funding. This is available to all trainees in the region.

Another recent advance has been the work of a group in the Severn Deanery who have developed, with an engineer, a new set of high fidelity eye models for use in a wet lab or even theatre setting. Trainees train on these models under a combination of supervised and non-supervised wet lab sessions and then are assessed on an OSSCAR (Objective Structured Surgical Competency Assessment Rubric) before being deemed competent to operate on a patient.

The future for Ophthalmology training in Wessex

Ophthalmology training in Wessex has already been progressive in its approach to surgical simulation with trainers at all the units trying to promote simulation techniques. All new trainees are encouraged to make use of local wet labs and the EyeSi which is installed at Bournemouth. We also have a group of trainees and trainers with a passion for increasing the use of simulation and these individuals have run various teaching sessions and promoted simulation in their units. We believe this should complement actual surgical experience in theatre and not replace it. As a group however we would like to see the adoption of surgical simulation become more widespread and form, not only the foundation for all future trainees in the region, but also a method established surgeons can use to develop their skills in order to improve patient safety. We are hoping to be able to provide each unit with the new higher fidelity model eyes that can be accessed easily by every trainee and have plans to appoint a Surgical Simulation lead in each unit who will drive this locally.

We hope that Wessex can lead the way with surgical simulation in Ophthalmology….watch this space to see if our enthusiasm catches on!

Mrs Kate Bush
Surgical Simulation Trainee Lead for Ophthalmology and Medical Education Fellow

(http://simulatedocularsurgery.com/)
 Whilst completing a simulation fellowship in 2012, I became interested in educational theory and practice as it related to simulation. I identified there were many people using simulation training without any formal teaching themselves. This led to difficulties in quality assuring the various activities around the region. Whilst many people are technically capable of running a simulation sequence, the deepest learning comes from debriefing, something that fewer people are experienced in doing. A well-facilitated debrief should enable participants to identify and trouble-shoot the main issues experienced during the scenario, facilitated by the simulation faculty.

To address this issue, Dr Kim Sykes (Consultant Paediatric Intensivist), Dr Helen Fielder (Consultant Neonatologist) and myself joined forces to create a ‘Train the Trainers’ course for simulation in paediatrics and neonatology. We all had extensive experience of using simulation as an educational tool, sat on the Royal College of Paediatrics and Child Health Simulation and Technology Enhanced Learning Workgroup and had attended both national and international courses and conferences. We initially worked in collaboration with Carl Read, Simulation Centre Manager in Southampton and Andy Coleman, an educator working with the Resuscitation Council (UK) and the Advanced Life Support Group, drawing on their knowledge and experience. We created a 2-day course covering basic educational theory as it relates to simulation, the technicalities of running the hardware and software, using simulated patients, workshops on setting up simulation programmes, writing scenarios and how to engage your learners. The delegates then design and run simulation scenarios for each other to practice the skills they have learnt. Participants are provided with contact details for the faculty and encouraged to contact us for support in establishing their own simulation practice after the course.

The course is inter-professional, inviting anyone working with children with any level of simulation experience to apply. Attendees at each course are carefully selected to create balanced teams with representatives from a breadth of health care professions. Since its inception the course faculty has benefitted from the input of educators, doctors, nurses, technicians and other simulation professionals without whom running the course would not be possible and to whom I am hugely indebted for their continuing support.

Since 2012 we have run 2 – 3 courses a year, each for 12 candidates. The feedback from the courses has been overwhelmingly positive and the course has become so popular that we now operate a waiting list.

There are more Simulation Faculty Development Courses (Paediatrics and allied specialties) planned for 2015, so if you are interested please contact Jo Walker, course administrator at: scheducationnetwork@uhs.nhs.uk.

Dr Helen Wilson
Paediatric Specialty Trainee and Medical Education Fellow
Like the majority of trainees I routinely ignored the emails about various fellowships and would never have considered applying for one without the encouragement of a senior colleague. I assumed these programmes were for a different kind of trainee - older, more experienced or more driven perhaps. Yet somehow I found myself applying for the 2012 curriculum mapping simulation fellowship as a part time ST4 trainee with two small children. I had no idea what I was letting myself in for.

To be honest, back at the beginning I didn’t even know what curriculum mapping really meant and I went to the interview with only the vaguest of project proposals. At the start of the programme I felt entirely out of my comfort zone being immersed in medical politics and unfamiliar educational terminology. This was a whole new world to me and a steep learning curve, but one that I found enormously rewarding.

Through the six month programme I learned a huge amount about leadership, project management and the inner workings of the NHS and subsidiaries. I worked with some fantastic individuals and was introduced to a world of inspiring possibilities in medical education. Overcoming numerous challenges definitely improved my leadership skills. The fellowship was far more than just a project about simulation, it helped me build numerous skills which have improved my ability as a Consultant.

Dr Liz Tate
Consultant Forensic Psychiatrist
NHS South England Clinical Simulation Fellow 2012 – 2013
Wessex Medical Education Fellow