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Members, Instructors and ICs:

To ensure we can continue to notify you about future newsletters, please let us know if your email address changes.

Online contact details update form

Resuscitation Council (UK)

5th Floor, Tavistock House North
Tavistock Square London WC1H 9HR

Telephone: 020 7388 4678
Email: enquiries@resus.org.uk
Website: www.resus.org.uk
The Resuscitation Council (UK) had a busy and successful year in 2011. This included updates of all its courses and the launch of the new e-ALS course. The Council has a number of projects for 2012, some of which I will allude to later.

Firstly, I would like to let those who organize courses know that the Council will not be raising the cost of course registrations and manuals in 2012. Initiatives such as the e-ALS course will also enable course centres to deliver training more efficiently.

A major piece of work is the update of the standards documents for hospitals and primary care settings. The aim and challenge is to try and provide guidance for the wide range of settings where clinical care is delivered including acute hospitals, mental health settings, general practice and community settings. This will also include an update of the equipment lists currently on the website. The plan is to make a draft version of the document available for comment before publishing the final version. Look out for further information during 2012.

The Care Quality Commission (CQC) is the independent regulator of all health and social care services in England. It ensures that the care provided by hospitals, dentists, ambulance services, care homes and services in people’s own homes and elsewhere meet Government standards of quality and safety. The main resuscitation issues that the CQC influences are decisions relating to cardiopulmonary resuscitation and staff training. The Resuscitation Council (UK) has recently held discussions with the CQC and provided advice to ensure that the guidance for CQC inspectors is based on current resuscitation guidelines and standards.

Echocardiography by trained individuals can be useful in the peri-arrest setting to identify and treat conditions such as pericardial effusion. Focused Echocardiography in Emergency Life support (FEEL-UK) is an established and successful course developed by Susanna Price and colleagues. The Council is already involved in FEEL-UK and has developed closer links so that future FEEL-UK courses come under the umbrella of Resuscitation Council (UK). Please see our statement on FEEL later in this Newsletter.

The Resuscitation Council (UK) is keen to promote research into all aspects of the science, practice and teaching of resuscitation techniques. The Council can provide financial support for research projects. The Council is recognised by the National Institute of Health Research (NIHR) as a non-commercial partner. This allows the Council’s small project and fellowship grants to be registered on the NIHR Portfolio. In England, Portfolio studies have access to infrastructure support via the NIHR Comprehensive Clinical Research Network. Please see the research section on our website for more information. I would also like to take this opportunity to congratulate Joyce Yeung, the first Resuscitation Council (UK) Research Fellow, for successfully completing her PhD.
Television watchers will have seen the British Heart Foundation’s Hands-only CPR advertisements featuring Vinnie Jones. The Council collaborated on this project and hopes that this campaign will raise awareness amongst the large proportion of the population who have never had any resuscitation training. You can watch the advert and find out more at bhf.org.uk/handsonlyCPR. I am hoping the campaign will encourage more people to get training in standard CPR that includes both compressions and rescuer breathing. The ultimate aim is to increase bystander CPR rates and save lives. The Council and British Heart Foundation are also continuing to collaborate on a project to increase the teaching of emergency life support skills including CPR in schools. For the latest information and how you can help please visit our website.

Finally, as always I would like to thank all those who help spread resuscitation guidelines, teach on courses and care for those who need resuscitation. This work has no doubt helped saved numerous lives.

Jasmeet Soar
Chairman, Resuscitation Council (UK)

We are holding the 2012 Scientific Symposium meeting on Thursday 27 September at the National Motorcycle Museum, Solihull.

The focus of the conference is on clinical aspects of prevention of cardiac arrest and difficult decisions in resuscitation. There is a session for Free Papers and Hot Topics, and Dr Fionna Moore (London Ambulance Service) is delivering the Asmund Laerdal lecture. The full programme is available on our website. Those of you who attended the last symposium will appreciate the size and location of the venue. We strongly advise that you register early to avoid disappointment – please use the registration form on our website.
Presentations can be made either as an oral presentation or as a poster. The Research Subcommittee will decide which presentations will be oral and which will be posters (unless you express your wish not to present orally). If you would like the opportunity to present at the Symposium please submit your application no later than 2 July 2012. Details and an application form can be downloaded from our website. Please return your application to Sara Harris at research@resus.org.uk.

Social networking channels

We have now embraced social networking and can now be found on Facebook as “Resuscitation Council (UK)” and on Twitter @ResusCouncilUK. We also have a channel on YouTube.

Please 'like' and ‘follow’ us and we will keep you updated with our news as well as providing links to papers from Resuscitation and details of forthcoming meetings. We also value your feedback on how we can evolve these sites.

Effective chest compression

...Break a rib to save a life?

"I was told when I had CPR training you are only doing it right if you break ribs" – quoted by an instructor in an email to the RC(UK).

The instructor answered that this was a myth, and perfectly efficient CPR can be performed without causing any injury to the ribs or, indeed, any other part of the body. But was he right? What is the risk of inflicting injury to the chest during CPR? Is it inevitable, and does it matter?
Most of the published reports of such injuries have been from post-mortem studies so, by definition, the patients did not survive. In these cases, resuscitation efforts are likely to have been more prolonged and, quite possibly, more vigorous. A review by Hoke and Chamberlain concluded that rib fractures occur in at least one-third and sternal fractures in at least one-fifth of adult patients receiving conventional (manual) CPR. The risk of fractures increases with the age of the patient and the duration of CPR. Such injuries are very rare, however, in children (up to 2% rib fractures, and no sternal fractures in the series studied). In spite of the high frequency of injury in adults, however, serious internal organ damage hardly ever occurs.

A recent study of survivors of conventional CPR, using multidetector CT scanning as a sensitive method of demonstrating thoracic fractures, showed a significantly higher incidence of injuries. Of the 40 patients studied, 65% had rib, and 30% had sternal fractures. Since the patients survived, it may be presumed that they received efficient CPR, although this was not quantified.

Could it be, therefore, that for CPR to be most effective, ribs do need to be broken?

During the 2010 ILCOR evidence evaluation process, various elements of chest compression were assessed as whether they improved the chance of survival after cardiac arrest. The important ones identified were: correct rate, correct hand position, adequate depth, full chest recoil, and minimal pauses. Of these, incorrect hand position and excessive depth of compression are the ones most likely to result in chest wall damage.

Does an incorrect hand position lead to injury? Compressing with the hands over the middle of the lower half of the sternum is considered to be both more efficient and less likely to cause injury than if the hands are placed more laterally or caudally. Incorrect hand position is something that can, and should, be avoided, but evidence for a ‘perfect’ hand position has not yet been published.

This leaves us with depth of compression as the most likely determinant of whether bones are broken during CPR. The relevant 2010 ILCOR treatment recommendation is: It is reasonable to compress the sternum at least 2in/5cm for all adult cardiac arrest victims. There is insufficient evidence to recommend a specific upper limit for chest compression depth. In the event, both the ERC and RC(UK) have recommended a compression depth of 5-6cm, the upper limit being based on a concern not to do harm.
According to a study on the relationship of compression force to compression depth, a mean force of 30kg is needed to achieve a compression depth of 4.2cm, and 50kg would be needed to ensure that 95% patients’ chests were compressed by 38mm, the lower end of the (then) guidelines range. If we extrapolate these data (very crudely, as the relationship between force and depth is not linear) for the new guidelines, a mean force of 50kg may be needed to achieve a depth of 5cm and we might be looking at 80kg to get 95% acceptable compression.

The big question, then, is how much force is needed to break a human rib or sternum during manual CPR? It does not appear to be known! So how should we answer the question posed to our instructor? I suggest as follows:

Ribs (and the sternum) often break as a result of good chest compression, but this is not inevitable, and should certainly not be considered something to aim for.

Children’s ribs being more flexible, the risk of fracture is very much less.

Even if ribs do break, rarely is any serious harm done, certainly not as much harm as would come from failing to compress deeply enough. As Vinnie Jones said in the BHF video, ‘Better to break a rib than kick the bucket’.

You can reduce the risk of injury and increase the chances of success by ensuring that your hands are in the correct place on the sternum (middle of the lower half).

Especially whilst looking down on a patient from above, it is difficult to judge your compression depth, so practise with a manikin that has been adjusted to ‘click’ when 5-6cm depth has been reached or, better still, with a feedback device that indicates the exact depth reached.

Dr Anthony J Handley

** If anyone can answer this question, please let me know!
REFERENCES


We have recently added two new FAQs on ALS to our website. These both relate to resuscitation in pregnancy.

The questions are:

“At what gestation can compression of the inferior vena cava (IVC) occur and when should techniques for displacing the uterus off the IVC be employed?”

and

“What methods of uterine displacement should be employed to prevent IVC compression but maximise the efficacy of good quality chest compressions?”

To view the answers to these questions on our website, please [click here](#).
It is estimated that there are approximately 12,000 tracheostomies and 600 laryngectomies performed each year in the UK. Some of these patients will suffer early complications due to haemorrhage, usually around the time of surgery or subsequent blockage or displacement. The likelihood and nature of such harm as a result of the latter depends to some extent upon the patient’s location at the time (e.g. critical care unit, operating theatre, ward, community). This probably reflects the underlying condition of the patient and the nursing and medical infrastructure available for both routine and emergency care. Even being in a critical care area is no guarantee of safety; NAP4 found that death occurred in up to 50% of patients in these areas when a tracheostomy became displaced.

Following a cluster of serious adverse incidents in the Northwest relating to tracheostomies and laryngectomies, a group of local Anaesthetists and Intensivists reviewed similar events reported to the NPSA and identified a number of clear, common themes contributing to poor outcome, not least the lack of awareness amongst individuals of the differences between the airway structure of patients with tracheostomies and laryngectomies. Although some institutions had produced local guidelines to help with the management of these patients, based on individually acquired skills, experience or lessons learned from previous errors there was no commonality. It was clear that simple, clear and authoritative guidelines were urgently required, to facilitate training and management, along the lines of those produced by the Difficult Airway Society (DAS) to manage failed intubation and the Resuscitation Council (UK) to manage cardiac arrest.

This process started with the production of draft guidelines, tested and evaluated by local experts, the formation of a multidisciplinary working group (DAS, Intensive Care Society (ICS), ENT UK, and the British Association of Oral and Maxillofacial Surgeons) and a comprehensive literature review. Feedback was also invited using a process of open peer review. What became apparent at an early stage of the process was the need for distinct guidelines for management of emergencies for patients with either a tracheostomy or laryngectomy, with both carrying a clear message emphasising the need for oxygenation of the patient and the need to call for help early. As the project expanded from a local to a national initiative, the group adopted the name National Tracheostomy Safety Project.

The algorithms

The algorithms themselves only provide a reference point or focus for the wider educational process. The guidelines development process and detailed explanation of how the algorithms are used is scheduled for publication in 2012 in the journal ‘Anaesthesia’. The key messages in both algorithms are simple; get help early and ensure oxygenation by whatever means.
Patent upper airway: the ‘Green algorithm’

This algorithm is paired with a green bedhead sign and assumes a potentially patent upper airway, as the upper airway remains connected to the trachea and theoretically allows ventilation by this route. As the tracheostomy may have been performed to manage a difficult or impossible upper airway, the paired green bedhead sign emphasises this along with any airway devices or techniques used successfully. The algorithm follows a standard ‘ABC’ approach, an assessment of tracheostomy patency and finally techniques of ventilating patients with a tracheostomy.

Laryngectomy: the ‘Red algorithm’

This algorithm is paired with a red bedhead sign and indicates that the patient does not have an upper airway in continuity with the lungs and therefore cannot be ventilated via this route. The principles of the algorithm are the same, without the conventional upper airway management steps.

When all types of tracheostomies are considered the likelihood that an airway stoma encountered in an emergency situation is a laryngectomy is between 1 in 20 and 1 in 30. A patient with a tracheostomy is more likely to come to harm by not having oxygen applied to the face if confusion surrounds the nature of the stoma; the default emergency action is therefore to apply oxygen to the face and the stoma for all neck breathers when there is any doubt as to the nature of a stoma. Any oxygen applied to the upper airway can be removed in the case of a laryngectomy once this has been confirmed to be the case. Ventilation via laryngectomy stomas can be achieved using paediatric face masks or laryngeal masks applied to the anterior neck.

The Resuscitation Council (UK) is pleased to have been involved with this very important project and has now endorsed the algorithms. All healthcare professionals who may encounter patients with either a tracheostomy or laryngectomy are strongly encouraged to visit the website (www.tracheostomy.org.uk) and review the algorithms and ensure that they are adequately trained to apply them when required to do so.

Dr Carl Gwinnutt
The Emergency Life Support (ELS) campaign is a joint project between Resuscitation Council (UK) and British Heart Foundation. We are lobbying the Government to include ELS training as a mandatory component of the school curriculum.

We have an exceptional amount of support from children, parents, teachers and MPs for this initiative. Unfortunately, the Secretary of State for Education is still reluctant to ensure that all children learn life support skills despite the incredible level of support for it to happen. Although we were unsuccessful in our bid to amend the Education Bill, we are currently providing input into the PSHE, PE and Science curriculum reviews with evidence based submissions to support our argument. In addition, we are now also working with the European Resuscitation Council to lobby the European Parliament to make this a priority for Europe, not just the UK.

Please continue to support us by encouraging friends and relatives to sign the e-petition on www.bhf.org.uk/lifesaving There is excellent evidence from Seattle and Scandinavia that teaching all children ELS leads to increased survival rates from out of hospital cardiac arrest. We will not give up until we achieve this goal for the UK.

Dr Andrew Lockey

The National Institute for Health and Clinical Excellence has published a quality standard for end-of-life care for adults. This is available at:
http://www.nice.org.uk/guidance/qualitystandards/endolifecare/home.jsp

The document has been endorsed by the Resuscitation Council (UK). It embraces the importance of having people properly trained in discussions about sensitive end-of-life issues, including decisions about CPR – a message that the Council has promoted and will continue to do so.
Members and instructors should be aware that Glaxo Smith Kline, manufacturers of “Digibind” (digoxin-specific antibody) have discontinued its manufacture. An alternative digoxin-specific antibody “DigiFab” is available. This product has been available and in use in the USA for several years and was licensed in the UK in August 2011. DigiFab is manufactured in the UK by Protherics UK Ltd, Ceredigion, Wales and distributed by Beacon Pharmaceuticals.

The National Poisons Information Service (NPIS) currently recommends the use of DigiFab for the treatment of digoxin poisoning of sufficient severity to warrant its use. Details of recommended doses and of the interrelation to the prior use of Digibind can be accessed via TOXBASE at www.toxbase.org.

The links below include the product information for DigiFab, the current guidance from the NPIS and the manufacturer’s website.

1. DigiFab UKPAR (on MHRA website)
2. NPIS advice on DigiFab dosing
3. Manufacturer’s guidance on switching from Digibind to DigiFab
4. Manufacturer’s product details (on BTG website)
5. American product information sheet for DigiFab

As you will all be aware the Olympic games run from 27 July - 12 August followed by the Para Olympics from 29 August - 9 September.

There will be significant disruption in London throughout the Olympics and the preceding weeks. The RC(UK) office is situated in the allocated ‘Press’ zone and access to the office will be problematic. We are anticipating disruption to postal collections, deliveries and courier services.
Travel to and from the capital will also be significantly affected at times with some road closures and all this will impact on the delivery of course manuals and materials to course centres. The RC(UK) office will also be operating with fewer staff throughout this time.

In order to ensure the smooth running of any courses planned during and around this period we strongly advise all centres (whether London-based or not) to prepare ahead and ensure that course notifications, approvals and manual orders are sent to us as early as possible so that we can ensure you have your course materials well in advance. Clearly many centres in the London area may have decided not to run courses during this period.

Following some valuable feedback relating to the assessment of Instructor Potential candidates across ALS, EPLS and NLS courses, we thought it would be useful to provide guidance on how this can be achieved. Having successfully made the transition to utilising the ‘learning conversation’ as the model for provision of candidate feedback over the last 18 months, IP candidates have several opportunities to demonstrate their commitment to the feedback process. This will largely be at the invitation of an Instructor to the group for their comments whilst facilitating a ‘learning conversation’ with one of their peers, or if there is sufficient time on a course to enable a candidate to take the lead with a ‘learning conversation’ with one of their peers supported by faculty. Practically the latter is more difficult to achieve.

Therefore, if a candidate is responsive and supportive to peers in providing helpful feedback as part of an Instructor led learning conversation, this should translate to a score of 2 or 3 in your assessment, depending on the overall faculty impression of their ability in this area.
We all have moments in our careers that we remember. One for me was when interviewing the mother of a twenty-year-old survivor from an out of hospital cardiac arrest. She remarked how 'naive' she was in not knowing anything about CPR or defibrillators. Fortunately her daughter collapsed in a public place and was attended to first by a local teacher (trained in CPR via our Heartstart initiative) and then a community responder before the ambulance arrived. One of the lucky ones.

This lady is not alone. Currently only about a third of cardiac arrest victims get any bystander CPR before an ambulance arrives. Cardiac arrest claims 30,000 lives in the UK each year so a new BHF campaign has been launched to reduce these mortality rates through a simple education based approach.

The campaign encourages individuals to rapidly recognize there is a problem, dial 999 and start chest compressions. We hope the message will improve bystander CPR rates and we have plans in place to monitor the impact of the campaign including this effect.

The target population is therefore people who have had little or no CPR training – rather than those who have received training and already know how to do CPR with rescue breaths in adults or children. The campaign is in line with Guidelines 2010 as compression-only CPR has potential advantages over chest compression and ventilation, particularly when the rescuer is an untrained or partially-trained layperson.

Prior to the campaign's launch we notified our networks that CPR should remain standard care for healthcare professionals and the preferred target for laypeople, the emphasis always being on minimal interruption in compressions. We recognise that there are situations where combining chest compressions with ventilation is better, for example in children, asphyxial arrests, and prolonged arrests. Those laypeople with a duty of care, such as first aid workers, lifeguards, and child minders, should be taught chest compression and ventilation.

Our campaign website and literature encourages individuals to get CPR training that includes training in ventilation. With our TV time limited to 40 seconds, only key messages regarding recognition, calling for help, starting compressions were included.

So far the campaign has certainly got people's interest in resuscitation related issues and this can only be a good thing. Our training video has been viewed 1.2m times and two lives saved as a result.
Through our press and media channels we have been fortunate to receive national and international press coverage and a BHF campaign first in having the subject of CPR debated through social media.

Currently most cardiac arrest victims get no bystander CPR and we hope this campaign will improve the situation for this group. Please continue to support this campaign amongst your own networks. More details can be found via the BHF website www.bhf.org.uk where there is a dedicated campaign webpage.

Claire O'Neill
British Heart Foundation

For those of you who may be unfamiliar with the organisation, CPRO (The Council for Professionals as Resuscitation Officers) is an organisation working to provide a network for those involved in resuscitation practice. We aim to support people by offering networking opportunities including study days, a website, and the British Journal of Resuscitation. We also work closely with the Resuscitation Council (UK) on a number of projects, and with other bodies such as ICNARC and NCEPOD where we have representation within various projects. CPRO may also help with the distribution of surveys for dissertation purposes through its email listings. We have a small group of Resuscitation Officers acting as the Executive body and we have independent Trustees who are very supportive of the work being done.
In the past year we have been reorganising and would now like to share our progress with you and hope that you will be enthused to contact us to discover more. As a charity we have a duty to review our systems and we have streamlined the organisation to one that can look to the future. This has meant that we may not have been as active with our membership as we would have liked in 2011 but by undertaking this work we feel we have an organisation fit for purpose.

We must now look to move forward. We have a new website ready to launch, and need a group of individuals who are interested in finding suitable information for regularly posting onto this in order for it to be dynamic, interesting and useful. We also hope to maintain the free membership we were able to offer last year. This is due to end in April but our work to get new sponsors may mean that we can continue this. Again, we need enthusiastic Resuscitation Officers to maintain regular contact with sponsors to ensure they are involved with the progress of the organisation. We are also working with Media Publishing who will manage the publication of the British Journal of Resuscitation. CPRO will retain editorial rights but the advertising, publishing and distribution will be taken care of by a company well used to the business. We would welcome the submission of any papers for this journal and encourage anyone to contact us for more information.

CPRO will also continue to work with the same company in order to provide the Resuscitation study day programme at the Life Connections conference being held in Kettering on Friday 4 May. We already have a number of speakers confirmed. The programme is varied and of interest to all involved in resuscitation. We would encourage anyone interested to register for this by going online to www.lifeconnections.uk.com. The CPRO AGM will also take place during this meeting. Sheila Turner (Vice Chair) will be taking over as Chair and we would encourage anyone interested in joining the Executive to contact us as new executive members are needed in order for CPRO to continue and to have new vision for the future.

If you would like to know more or would like to become involved in some way please do contact us by emailing rocouncil@gmail.com. CPRO looks forward to working with Resuscitation Officers both longstanding and new in post, and hope that you will join with CPRO to promote and further the work being done.

I would like to thank the Resuscitation Council (UK) for the opportunity to report on the progress CPRO has made in the last year and our hopes for the coming year. May I also wish everyone very best wishes for 2012.

Sue Hampshire
Chair CPRO
The e-ALS project has made significant progress since our last newsletter. In the summer of 2011 we reported on the development of the e-learning material and our plans to make the e-ALS course available across a number of platforms including PC, Mac, iPad, iPhone and Android phones.

The e-ALS course has now been launched on PC and Mac, and the first few courses have been run successfully at early implementer sites. The feedback from these sites has been very positive and you can see some testimonials below.

The e-ALS course uses a bespoke LMS to give candidates access to e-learning materials. Example screen shots and a video clip of the e-learning content can be found on our website.

The e-ALS course has a number of advantages for the course organisers and for the candidates:

For candidates:
- Modules can be completed at the candidates own pace and as many times as they wish
- Consolidation and application of knowledge to clinical scenarios in advance of the face to face element of the course
- A combination of text book and interactive resources
- One day of focussed skill acquisition and application through face to face learning rather than two days requiring less time away from the workplace
- The material will soon be available on iPad, iPhone and Android phones, and as such candidates will be able to access it any time, anywhere

For the course centre:
- Reduced face to face teaching time with associated faculty and other resource savings
- An LMS that performs a number of automated functions, reducing the administrative burden such as:
  - Collecting candidate demographics
  - Pre-course MCQ marking
  - Emailing information regarding the course to the candidate
  - Tracking and reporting of candidate progress through e-learning
  - Successful candidates download and print their own certificates
  - Course evaluations collated and summarised
Over the course of the next 12 months we aim to harmonise the course registration and administration processes between e-ALS and the traditional course. We are working towards having all ALS course administration managed through the e-learning LMS site by 2013 and all centres are strongly encouraged to start using the site to manage their 2-day face to face courses even if they are not running e-ALS. This means all candidates will be required to complete their profile information and pre-course MCQ on the website. They will also have the added bonus, should they wish, of having access to the ALS algorithm module which includes a lecture on the ALS algorithm and a video of the CASDemo before they attend the face to face course. Finally, they will be able to complete the course evaluations on-line and successful candidates will be able to download and print their own certificates.

Whilst we believe that the course administration system is highly intuitive we will be offering support for course administrators as they make the transition from paper to the e-ALS administration system. Please liaise with the ALS co-ordinators and make the transfer soon. They will send you the on-line training video and if you need additional training you can book a place on one of their scheduled on-line training sessions which are being held every Tuesday afternoon and Thursday morning.

Finally, we would like to thank Jenny Lam who was has left the Council for new ventures. The success of the e-ALS project is largely due to her and we warmly welcome Sultana Ali Begum who will continue taking the project forward.

What they are saying about the e-ALS course...

“I took the course two days ago and have just received the link to the certificate. I just wanted to email and say thanks and that I thought the course was of the absolute highest standard. I am due to start back in the hospital as a medical registrar next week. I was a little concerned about being rusty when having to run cardiac arrests etc but after doing the pre-course work and spending the day going over scenarios I am much more confident about going back into clinical medicine”.

e-ALS candidate

“An extremely enjoyable day for both candidates and faculty. The candidates were well prepared and really engaged with the face to face element of teaching. They completed the course feeling very positive and with a high level of competence”.

Annalie Barber

“The e-ALS provided an efficient and effective method of education in ALS. The candidates found the e-learning material user friendly, easy to navigate and easily accessible. Many commented on the benefits of being able to study at their own discretion. Whilst it was hard-work for both the candidates and the instructors, the course was a very enjoyable educational experience borne out by a100% pass rate!”

Ken Spearpoint
Focused echocardiography in emergency life support

The FEEL-UK course is intended to train practitioners in the use of transthoracic echocardiography (TTE) in a standard, ALS-compliant manner during the peri-resuscitation period. The training programme consists of a one day face-to-face course which is primarily orientated towards gaining basic echocardiography skills (including practice on live subjects) and integrating echo into the ALS algorithm.

After the one day course participants are issued with a certificate of attendance. Following the course they must complete a minimum of 50 focused scans under the supervision of a local mentor (who must be fully trained and British-Society-of-Echocardiography-accredited in echo) and submit a log book to obtain full certification. The course differs from other ultrasound courses in that it is focused on ultrasound in the context of cardiac arrest, and it is the only focused echocardiography course formally endorsed by the British Society of Echocardiography, which sets standards for delivery of echocardiography in the UK.

Full details of the FEEL (UK) course can be found at: www.feel-uk.com/about.php
The course is endorsed and supported by the Resuscitation Council (UK). Future FEEL (UK) courses now come under the remit of Resuscitation Council certified courses.

NCAA is the national clinical audit of in-hospital cardiac arrest with the aim of improving resuscitation care and outcomes for the UK and Ireland. It is a joint initiative between the Resuscitation Council (UK) and ICNARC (Intensive Care National Audit & Research Centre).

125 hospitals are currently participating in NCAA. A list of these hospitals is available to download from the ICNARC website www.icnarc.org. Recruitment of hospitals is ongoing so, if your hospital or another hospital within your Trust would like more information about participating, then please contact the NCAA Team at ICNARC – ncaa@icnarc.org
First NCAA Annual Meeting

The First NCAA Annual Meeting was held on 6 October 2011 at the Wellcome Collection Conference Centre in Central London. Over 100 delegates from 57 participating hospitals attended and the event was heralded as a great success!

The Annual Meeting set out progress to date as well as NCAA's vision for its own future. Notable successes to date include the number of hospitals participating, the introduction of routine data validation and the production of the first hospital reports on NCAA data. All delegates had the opportunity to have their dataset queries answered publically, during the interactive dataset session and also one on one, via the NCAA helpdesk. Future goals include a focus on managing the participation performance of all hospitals and improving the functionality of the secure web-based data entry system.

Undoubtedly, the highlight of the day for many came in the poignant reflection on why we need NCAA, given by Viv Cummin (NCAA Patient Representative, NCAA Steering Group) reminding us all of the importance of NCAA to patients and their families. Delegates were also treated to their first taste of national NCAA results to date. The day finished with the presentation of prizes to recognise the outstanding efforts of individuals at hospitals for their active participation in NCAA.

Thank you to all delegates for their input and to our Chairs and Speakers for helping to make the day so successful! For those of you unable to attend, we hope to see you at the second Annual Meeting in the autumn (25 October 2012).

Data validation

The data validation process serves to improve the quality of hospital data prior to reporting. Participating hospitals receive Data Validation Reports (DVRs) which identify where data are missing, invalid or unusual, giving the hospital the opportunity to edit their data. DVRs should be processed at each hospital within the three-week turn-around time in order to receive a NCAA Report.

Reports

The NCAA Reports are produced on a quarterly basis (based on a financial year i.e. April to March) and are cumulative (i.e. Q1, Q1+2, Q1+2+3 and Q1+2+3+4). Reports provide participating hospitals with grouped comparisons (i.e. outcomes in your hospital by, for example, presenting rhythm, age, etc.) against all NCAA data for the reporting period. Reports are provided on validated data only.

Models predicting outcomes following a team visit have yet to be developed. With increasing numbers of hospitals participating, we are hopeful that we may soon be able to undertake the work to both develop and validate a multivariable statistical model on which we can base fair outcome comparisons to be included in NCAA Reports.