



Society for Cardiothoracic Surgery
in Great Britain and Ireland

the **bulletin**

July 2010

***Blood Transfusions -
harming Cardiac Surgery Patients?***

Birmingham Professional Development Course

SCTS University

External Aortic Root Support

PulMiCC

Sub-specialisation in Thoracic Aortic Surgery

Progress with the Database Agenda

The UK TAVI Registry

AGM 2010 Review

The Climb to Everest

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President's Address

Leslie Hamilton

Annual Meeting SCTS March 2010

“There is a time for everything...

And a season for every activity under heaven”

Ecclesiastes 3: 1

Members of the Society and
Guests...

One of the most challenging aspects of preparing one's Presidential Address is choosing a topic or theme - and then having done that, to choose a title. Having looked in many places for inspiration, I came across Ecclesiastes, the 21st book of the Old Testament in the Bible. Written by King Solomon, the son of King David, towards the end of his career, he was reflecting on events and considering things which were important. As the Bible has always been an important point of reference in my life it seemed appropriate that I used quotations from Ecclesiastes as the structure for my address.

It is with both pride and humility that I come to give my Presidential Address. No-one works in isolation and I could not have undertaken the role of President without the support of a number of people. First and foremost: my colleagues at the Freeman, who through their support and by working as a team have allowed me to be away from the Trust to undertake the duties of President. In particular I want to thank Asif Hasan who, first as my senior registrar and then colleague in paediatric cardiac surgery, shared the workload of a 1:2 rota. By allowing me to go to Society meetings he accepted that he himself could not be involved in Society business. It is a source of great pride to me that he, in a seamless manner, took over the management of our paediatric work and allowed me, in view of my advancing years, to go back to full time adult practice. My thanks also to Kryszewicz with whom I “buddy up” on the adult side – we do joint ward rounds and look after each other's patients when we are away.

It is too easy to take the support of your family for granted and so I am delighted to

have my wife Joy and our four “children” (Stuart, Suzanne, Carolyn and Fiona) here at this meeting so that I can express my thanks publicly to them.

One of the joys of being President is working with the superb Executive Committee – a wide range of personalities and views but all working together for the common goal of enhancing the Society. Inevitably you work closer with some than others and I think Graham Cooper (in his role as Honorary Secretary) and I have spoken more to each other over the past 2 years than we have to our wives! With a 5 year term for Secretary and 2 year for President there is usually an overlap but Graham and I started our terms of office together - as a “virgin” Hon Sec he has shown great wisdom. His support has been invaluable. Many of the events at the Society meeting get credited to the President but of course this is all the work of Simon Kendall (and now Ian Wilson) and our meeting team and so a special thanks to them. The issue of monitoring outcomes has always been a source of pride for the Society but it has inevitably had its sensitivities. Publication of the “Blue Book” last July was a major event and I am very grateful to Ben Bridgewater as Chairman of the Database Committee for seeing that through and for (repeatedly) explaining the statistical analysis to me. Thanks too, to Isabelle as our senior administrator for putting up with all my e-mails and telephone calls.

At the beginning of each Presidential term the President and Executive set a series of objectives. I would like to take a moment to review these briefly and report on the progress we have made:

1. Quality of care: we wanted to get beyond using mortality as the only outcome measure and look to using aspects of morbidity. The various



chapters in the Blue Book attest to what we have achieved. A recent paper in the New England Journal of Medicine from the USA looking at general surgical specialties, ranked hospitals by mortality and looked at the incidence of complications. The authors showed that the incidence of major complications was similar across the hospitals. The difference came when they looked at the incidence of death after major complications – the best hospitals with the lowest mortality dealt with the major complications better. The Database Committee: members were appointed following open advertisement and interview and they have taken this work forward. It culminated in the publication of the Blue Book and I have already acknowledged Ben Bridgewater's role as Editor. We realised that as a result of the analysis we would have, by definition, statistical outliers. We needed to develop a policy of how we would deal with that issue. Graham Cooper led the work and developed the policy document “Explaining Divergence” – this was implemented when the results of the data analysis were available. This was the most challenging and difficult task I had as President and I am grateful to all of you with whom I had contact for being so understanding and positive. I am pleased to report that other specialties have approached us for permission to use our policy in dealing with outliers as they begin to analyse their own outcomes.

continued on next page

President's Address *continued*

2. Revalidation and re-certification: Steve Livesey has led for us on the College Re-certification Group but in recognition of our work on outcome measures, the Society had members on each of the 3 Working Groups. The standards for re-certification have now been accepted.

3. Patient Involvement: for many years we had wanted to have some patient involvement in our Executive but had struggled to find an appropriate nominee. We have been delighted to welcome David Geldard to the Executive Committee and have appreciated his boundless enthusiasm (David had bypass grafts some 16 years ago and is still an active cyclist!).

4. Member involvement: the Executive was very conscious of the feedback we received that members felt disenfranchised and distanced from the Society. We therefore formed the Board of Representatives with a surgeon from every unit – the Board meets twice a year with the Executive to hold them to account and to provide a formal conduit for exchange of information back to units. This is still work in progress and I would ask you as members to use this opportunity. I was also aware that some people felt that Society representatives were “always the same old people”. Therefore any time I was asked to nominate someone to represent us on an outside body, I have adopted a policy of putting this out via e-mail to ask for expressions of interest. The nominations were then made by the Executive Committee – we have deliberately tried to involve as many of you as possible.

5. Thoracic Surgery: aware of the feeling of thoracic surgeons that at times they felt marginalised in the Society, we have worked hard to achieve a balance. Through the two elected thoracic surgeons on the Executive (Jim McGuigan and John Duffy) the thoracic part of this meeting has undergone significant development. We have established a “Surgical Advisory Group” within the British Thoracic Society and hope that this will lead to increased co-operation. We discovered that there were a number of people representing

and promoting thoracic surgery on external bodies / organisations and we felt it was important to have some co-ordination of this - so have formed an SCTS Thoracic sub-group.

I hope you feel that we have made progress on all of our objectives.

Enough of specific Society business.

Some reflections in general. The front page of the first volume of the New England Journal of Medicine (published in 1812) has the following:

“In our inquiries into any particular subject of medicine. Our labours will be generally shortened. And directed to their proper objects. By a knowledge of preceding discoveries”.

I have always been fascinated by the historical development of our specialty and so I would like to share a few thoughts.

In 1925 **Henry Soutar** (listed as “Surgeon with care of out-patients”, London Hospital) published a case report in the BMJ of a closed mitral valvotomy in a young girl. The description is dramatic (and worth reading in the BMJ archives), the patient survived, but the Cardiologist thought he was mad and refused to refer him any more patients.

Another of the founding fathers of our specialty in the UK, **Sir Thomas Holmes Sellors**, in his St Cyres’ lecture to the Royal College of Physicians in 19654 referred to surgeons as “*a therapeutic weapon of the highest potency in the hands of the Cardiologist*”. He went on to conclude: “*Man the surgeon is no longer a Demigod in complete control. He is the leader and co-ordinator of a complex team*”. That was true then but how much more true it is today.

You trainees and young surgeons are always encouraged to publish and yet your papers are often criticised for having too few cases. You can remind your critics that one of the landmark papers in our specialty (on the BT shunt) had 3 cases! (published in JAMA in 1945 by Blalock and Taussig). Two is a case report, three is a series!

When you are reviewing the literature, be careful not to narrow your search too much. It might surprise some to find another landmark paper on congenital heart disease in Thorax. (Fontan and Baudet’s 1972 paper on the Surgical Repair of Tricuspid Atresia). Again a series of three cases.

There are a number of lessons which can be learned from the experience of our forefathers. It is good to be an innovator but you have to maintain a balance. **Robert Gross** was a research fellow at Boston Children’s Hospital and was keen to carry out the first PDA ligation. His chief disagreed and so Gross waited until he was away and carried out the operation – the patient survived but Gross got sacked.

It is exciting to reflect on how quickly and dramatically our specialty has advanced. I am grateful to my colleague John Dark for this photo from his father (a surgeon in Manchester) of surgery in the early 1950s - preparing the anaesthetised child in an iced bath for closure of an atrial septal defect under inflow occlusion with hypothermia.

Walt Lillehei was one of the greatest innovators and characters of his generation. In the early 1950s he, against great opposition, carried out open heart repairs of congenital defects (AV septal defects, VSDs and Tetralogy of Fallot) using “cross circulation” – the patient on one operating table and the parent, acting as the heart/lung machine, on a separate table. He is also credited with pioneering the development of the “bubble oxygenator” which was the standard when I was a registrar. He also introduced the St Jude Medical valve. It is sobering to realise that at the age of 31, just when he was finishing his residency, he developed lymphosarcoma of his left parotid gland and was given a very poor prognosis – his chief at the time carried out surgery and subsequent radiotherapy contributed to his cure. However in later life he had to take early retirement because the radiotherapy affected his eyesight.

Presidential Statement

David Taggart

I start my Presidential period, being very aware of what a great privilege and honour it is to represent all our members in Great Britain and Ireland and also recognizing that I have a number of very hard acts to follow considering the outstanding work done by our immediate past presidents and most recently Leslie Hamilton.

However, I am also conscious of the very considerable potential difficulties our speciality faces. The new Government, facing a precarious financial situation, has made it clear that while there will be no active cuts to the Health Service budget we will be expected to deliver far more on the same budget (and therefore in reality will need to produce cost savings). If it has not happened yet I suspect that it is only a matter of time before we are expected to renegotiate our PAs.

While our paediatric colleagues face the challenge of reconfiguration of paediatric services, our Thoracic members have fairly stable practices. The introduction of the Thoracic Subcommittee chaired by John Duffy (and co-chaired by Graham Cooper) is designed to keep thoracic surgery issues at the forefront of the Society's attention. The recent increase in UK trained thoracic consultant surgeons is a particularly encouraging trend as is the growth of minimally invasive techniques. On the other hand concern has been expressed that lung resection rates for malignancy may be inadequate and that this merits more discussion than was possible at the last annual meeting.

Probably the most important threat we face is to adult cardiac surgery practice. Certainly in Europe and the United States there is a feeling that although the Syntax Trial showed a survival advantage and marked reduction in the need for re-intervention even at two years in almost 80% of patients with three vessel disease and 2/3 of patients with left main disease (consistent with a large body of existing evidence) this has not yet translated in to



changes in clinical practice. Furthermore, with regards to aortic valve replacement some of the international leaders in cardiology believe that within 5 years, 60-70% of all aortic valves will be replaced percutaneously. While these facts present a potentially gloomy picture, some of these issues will be addressed in the new combined European Society of Cardiology and European Association of Cardiothoracic Surgery Guidelines for Coronary Revascularisation which will be announced in August this year. Crucially these will address both issues of consent and recommendations for revascularisation which should guide the multi-disciplinary team approach. I strongly believe that such guidelines are in the best interests of both patients and the medical profession (and specifically the cardiovascular community) and that, in the interests of both, we need to ensure that they are actually implemented.

One of the great advantages of being part of the Executive is to be surrounded by colleagues with a wealth of individual talents, expertise and common sense. The taxing issues of how to most fairly present risk adjusted outcomes in a fashion that do not encourage risk adverse behaviour and presentation of our results in the public domain have been discussed in great detail both at the annual meeting and at the Executive. The very considerable amount of work done in these crucial areas by Graham Cooper, Ben Bridgewater and James Roxburgh merits specific acknowledgement. Sunil Ohri is expanding

his role as Communications Secretary while Vipin Zamvar and Leon Hadjnikolas are further developing the Bulletin and website respectively. Malcolm Dalrymple Hay is doing a 'sterling' job as treasurer while David Geldard has been tireless in representing the interests of our Society to a variety of professional and lay bodies.

Finally I would also like to pay tribute to June McKeown an Associate Specialist in Glasgow who tragically died at the age of 44 in May this year. Geoff Berg has written an obituary in this issue of the Bulletin and the Society will send a letter of condolence to June's parents.

One of the great advantages of being part of the Executive is to be surrounded by colleagues with a wealth of individual talents, expertise and common sense.

Honorary Secretary's Report

Graham Cooper

At the Annual Business Meeting in Liverpool we discussed two key issues; the future of The Public Portal and the concern of SCTS Executive that the publication of surgeon specific outcomes may encourage some surgeons to deny surgery to high risk patients. The papers presented are available in the members section of the website. Your Executive's subsequent discussions about these topics have been informed by the on-line survey conducted by Sunil Ohri. Whilst the responses to the survey have been helpful, the response rate was only 30% so we have to be careful in its interpretation.

The decision by the Care Quality Commission to no longer host the Public Portal gives us an opportunity to develop the Public Portal to produce a world leading resource to inform patients, carers and doctors about cardiothoracic surgery. In Liverpool we outlined four principles for this development of the website:

1. SCTS, as a professional body, should retain control over data collection and analysis
2. SCTS should have a strong input into the data presentation
3. That for the data presented to be truly credible and reassuring for patients there has to be visible external quality assurance
4. The development should align with NHS strategy

The first three principles were supported by 91%, 97% and 83% in the survey. There was less support for principle 4. Subsequently we have had positive discussions with both NHS Choices (www.nhs.uk) and Picker Europe (www.pickereurope.org). We will be meeting both at our next Executive and hope to be able to show at least some architect's drawings of the Public Portal's new home at the Board of Representatives meeting in November.

Also in Liverpool we reviewed the results of the SCTS mortality screening process. We showed a continued fall in mortality for cardiac surgery and that surgeon's whose mortality crossed the 95% confidence limit alert line had a similar size practice and risk profile as those who did not. Also that a mid-volume, mid-risk surgeon, to cross the 99.9% confidence limit, would have to have a mortality rate greater than twice expected and that this would represent a death, almost, every month for three years.

Nevertheless the SCTS Executive remain concerned that publication of surgeon specific outcomes may encourage some surgeons to deny surgery to high risk patients.

At the Annual business meeting we suggested some possible ways of developing the methodology:

- Excluding high risk cases from the analysis
- Separately benchmarking low risk and high risk cases
- Revising the lowest confidence limit from 95% to 97.5%
- Improving feedback of results to individual surgeons

In the debate that followed it was clear that there were mixed views with many present preferring not to exclude high risk cases, however 78% of those responding to the survey felt the methodology should be refined to mitigate risk averse behaviour.

This is not an easy task and every time we think about it I am reminded of the phrase 'for every complex problem there is an easy solution..... and it is wrong'. Refining the statistical methodology without producing a different set of adverse circumstances is taxing. Nevertheless we are working on it and will keep you informed of developments. Ben Bridgewater and the Database Committee have however, made good progress with the feedback of results and if this continues individualised feedback will be sent to surgeons later this year. As always your thoughts are welcome, graham.cooper@sth.nhs.uk.

Finally we pay tribute to members who have passed away at each Annual Business Meeting, these are usually surgeons who have been privileged to dedicate a full career to cardiothoracic surgery. It is particularly sad to hear of the death of a surgeon in their prime and our thoughts go to the family of June McKeown.



Obituary

June McKeown

June McKeown was born in Lisburn, Northern Ireland in 1965. At 4 years of age she underwent open heart surgery to replace her mitral valve, becoming a young local celebrity in the process having survived what was a hazardous procedure at the time. This experience led to her desire to become a heart surgeon and her

determination to achieve this ambition never faltered.

Following two further mitral valve replacements aged 11 and 14 years and despite losing many months of schooling, she was accepted to study medicine at Glasgow University qualifying in 1989.



From the Editor's QWERTY

Vipin Zamvar
Publishing Secretary

2010 is proving to be a very different year. Fact is stranger than fiction. Mark Twain explained this by saying that's because facts do not have to adhere to any scripts. The events unfolding this year could not have been imagined anytime before. Even in our wildest imagination, we would never have foreseen a volcano in Iceland shutting our airspace. Or for that matter the Liberal Democrats coming together with the Tories to form a government.

Austerity is the new buzz word, and very soon we will have to come to terms with this new age realism. There is no doubt that the NHS has seen significant improvements in the last ten years. I remember my days as a senior registrar in Cardiff about twelve years ago, when it was routine to operate on patients whose angiograms were 12 to 18 months old. That was the waiting list for CABG. Nowadays, it is not uncommon for some of us to offer surgery to our patients the week after we see them in clinic. Much of this improvement has been due to the setting of compulsory targets and money being made available to back up those targets. But now we slowly realise that some of it was borrowed money, and it is time to start thinking of paying back.

However, austerity may not be such a bad thing after all. It is at times like these that innovation and enterprise can flourish. As long as there are appropriate incentives available, personal or organisational innovation and enterprise will still be able to deliver. If these incentives are removed, it will be the first step on a very slippery slope towards mediocrity becoming the preferred norm.

Tom Treasure describes how the EARS implant came to fruition (page 18). Many surgeons would never ever have imagined this would be feasible, let alone being practised. Another example of how fact can sometime turn out to be stranger than fiction. About 15 years ago when Off-pump CABG was just gaining credence, off-pump valve replacement was considered possible only in the realms of imagination. Off-Pump aortic valve replacement is now feasible and in a very high risk group of patients, 4 UK centres that participate in the TAVI registry, have demonstrated excellent results. This is surely pushing the envelop, but does society have the stomach to pay for it?

In this issue Ben Bridgewater and Richard Page describe the ongoing work with the cardiac and thoracic databases. The BMJ award for excellence (page 44) is a recognition of the excellent work done by our Society. John Dark celebrates the long life and distinguished career of his father John F Dark who was the President of the Society in 1984 (page 15). Below, Geoff Berg pays tribute to June McKeown who underwent four major cardiac surgeries in her lifetime, and succumbed to cardiac failure at the young age of 44.

The Liverpool meeting saw the launch of the SCTS University, and for a maiden venture it was a huge success. The plans for the next SCTS University are ambitious (page 14), and if the momentum is maintained in the years to come, our



annual meeting may very well become the top academic event in the international calendar. The meeting in London will be at the Excel centre, and please mark your Calendar (March 20 to 22, 2011). The annual dinner on the 22nd will be a spectacular Thames riverboat dinner cruise on the Silver Sturgeon, and on page 34 you can see what's in store.

Sam Nashef's Crossword is on page 46. The theme of this Crossword is Agatha Christie and Poirot. Those who have read "Murder on the Orient Express" will find it very easy to crack this one. But to help our readers, we have ensured that all the answers are found in this Bulletin. So if you scour this Bulletin from cover to cover and read all the articles and the advertisements (Yes, advertisements as well: Industry's desire for us to be aware of their products, finances this Bulletin), you will find all answers. So happy hunting. And no austerity here; the first two correct entries get a bottle of Champagne each.

Editors have written with their pens, pencils, and styluses. Editorials have sprung from the Editor's desk, office, or corner. Editorials have simply been a view, or a viewpoint. In choosing a title for this editorial, I had many options. QWERTY fitted the bill best, and so it is.

Wishing you all a very enjoyable volcano ash-free summer...

Her training in cardiothoracic surgery took her to Castlehill Hospital, Aberdeen Royal Infirmary, Glasgow Royal Infirmary and the Royal Prince Alfred Hospital in Sydney. June became the first female trainee in Scotland to obtain the cardiothoracic FRCS. Her underlying cardiac disease led to several periods of illness but, despite these, June remained unflinchingly optimistic and uncomplaining. She worked as a locum consultant at Glasgow Royal Infirmary and, when the cardiac units

combined at the Heart and Lung Centre in Clydebank, she was appointed an Associate Specialist in Cardiothoracic surgery dividing her time between the Intensive Care Unit and theatre.

June was an enthusiastic and popular teacher not only of cardiothoracic and anaesthetic trainees but also in the training and support of her nursing colleagues. The successful cardiothoracic ALS programme developed at the Golden

Jubilee National Hospital was primarily down to June's commitment. Keen to socialise, it was rare to see her without a smile and her family, friends and colleagues will sadly miss her.

June McKeown

Associate Specialist in Cardiothoracic Surgery (b 12 December 1965; q Glasgow University 1989; M.B., Ch.B. FRCS (CTh) 2001) died from congestive cardiac failure on 5 May 2010.

Geoff Berg

Chairman of the SAC

Report

Mr Timothy R Graham

This will be my last article for the Bulletin as Chairman of the SAC as my period of office ends in October 2010.

It only seems a short while since I was appointed as Chairman of the SAC in October 2007 picking up the reins of a strong SAC after the period of chairmanship with Chris Munsch. Those of you that have knowledge of SAC meetings will know that they are prolonged affairs with much business and a great deal of robust and opinionated debate all of which focuses on optimising the training and opportunities for UK trainees in our specialty! My lasting memories of being chairman of the SAC will be the support and hard work of the other members of the SAC during that time.

Steve Livesey has been an extremely supportive deputy chair and in addition to all the other work he undertakes on behalf of the specialty in particular revalidation he has continued to keep the curriculum up to date (recently approved by PMETB) and has been our lead for ISCP.

Dr Vicky Osgood who is the post graduate dean for Wessex has been our lead dean for the specialty. Her contribution has been phenomenal over the last three years; she has been a voice of reason and common sense and in particular has contributed greatly to our specialty in leading on workforce planning and the development of consortia of training within the specialty even across borders. In addition on numerous occasions she has stopped the other members of the SAC from doing potentially stupid things!.

Steve Hunter has been involved with the SAC now for over a decade and he has served as the post graduate dean for the specialty after election by the trainees and more recently has been appointed as the lead for National Selection since 2008 which is widely regarded as the lead surgical specialty process by MMC/NHS. Steve, Sion Barnard and Hettie Till (Statistician) will report on the three years of the process in the next bulletin later this year.

I should also note the contribution that has been made to National Selection by **Lady Cynthia Irvine** who has been our Lay Chair Lady on all three National Selection

processes and has contributed to the detailed written reports of the process to MMC.

Sion Barnard who has recently been elected as Dean for the specialty has also been a co-lead on National Selection and the SAC lead on core/basic surgical training.

All the appointed SAC members in addition to their responsibilities as SAC Liaison members for all the UK programmes have a specific portfolio of work and activity – this fortunately means I do not have to attend all of the meetings!

David Barron is the SAC lead for congenital cardiac surgery and has been largely responsible for putting together the specialties bid for congenital cardiac surgery to be recognised as a sub-specialty by PMETB. This has been an enormous amount of work and has recently been approved by NHS employers and is due to be submitted via JCST to PMETB during the summer.

Pala Rajesh has been the lead SAC member for Thoracic Surgery and has recently together with the thoracic surgery sub group for the society; worked to develop pre CCT advanced thoracic surgical training opportunities to encourage the training of consultant thoracic surgeons for the future.

Jonathan Unsworth-White has recently taken on the responsibility for developing the electronic on-line shortlisting process for National Selection which was utilised for the first time this year.

John Wallwork has as would be expected been a senior figure and influence on the SAC and in addition to being the academic lead he has also been largely responsible for the development of pre-CCT fellows in Cardiothoracic Transplantation to hopefully fill the anticipated gaps which will be left by the current ageing consultant transplant surgical workforce.

Domenico Pagano has been co-opted onto the SAC and we are grateful to him for organising and leading on National Academic Selection which has occurred with National NTN Selection which is a considerable political achievement.

Bob Jeffrey has been Chairman of the Examination Board and during his tenure the SAC has been able to work with Intercollegiate Exam Board



towards developing sensible recommendations regarding the structured reference form and also the timing of NTN's sitting the intercollegiate exam to facilitate advanced pre-CCT training in the different aspects of the specialty.

Alan Kirk has contributed to the development of the Selection Stations for National Selection together with Peter O'Keefe and Jonathan Hyde has recently taken on the responsibility for Curriculum development.

John Pepper who is Education Secretary for the Society via the education sub-committee has liaised with the SAC well with regards to issues such as scholarships and awards and development in general of mutual educational and training issues.

We are also grateful to **John Anderson** who has worked very hard over the past year initially with helping to compile the annual specialty report to PMETB and latterly with a detailed analytical review of all the programme bids for NTN's for the 2010 round of selection giving the SAC the most up to date stocktake of training of all the surgical specialities.

Phil Kay has also contributed strongly to both workforce planning and the compilation of the annual specialty report and Lars Nolke and previously Vincent Young have represented the Royal College of Surgeons in Ireland well. James Roxburgh has continued to advise the SAC with regard to surgical log books.

I have been fortunate during my tenure as Chairman of the SAC that the trainees representative has been Sunil Bhudia; his quiet and relaxed demeanour is a front for someone who has worked exceptionally hard both for the SAC and in particular the trainees. He has helped keep the register on the employment of UK CCT holders which has given us the best handle on the

consultant employment prospects for NTN's of all the surgical specialties.

All of the SAC are to be acknowledged for the hard work that has been put in with the processing of Article 14 applications – each one of these is a considerable amount of work and needs to be gone through extremely carefully. It is both pleasing and reassuring that almost all the recommendations that have been made by the SAC to PMETB regarding Article 14 applications have been subsequently confirmed by PMETB.

Over the past three years the SAC has worked hard to both involve and inform all the training programme directors within the UK and Republic of Ireland. The programme directors have come together well and all of them have worked hard with the National Selection Process which in

part now needs to be passed on to the deaneries and programme directors with some input from the SAC.

I am grateful to all programme directors both past and present for their help and support both with the organisation of training and QA for all their surgical trainees and for their contribution and enthusiasm towards the National Selection Process.

There would be very little SAC activity or tangible output without the hard work and endeavours of the secretariat based within the JCST at the Royal College of Surgeons of England –London.

In particular Cristel Santos who is the lead for cardiothoracic surgery and Megan Wilson who is the JCST lead for non CCT trainees have worked hard to support the cardiothoracic SAC and all our trainees

over the past three years. Both myself and all the SAC are most grateful to them.

Finally I have enjoyed my time as SAC Chair - as Pat Magee, Peter Goldstraw and Chris Munsch have all said to me at various times it is probably the best job in Cardiothoracic Surgery although potentially one of the times in your career when you will work the hardest!! Fortunately as you will see from above I have been fortunate to have a talented enthusiastic and hard working SAC during my time as chair who have probably done most of the work over the past three years and remarkably all of them still seem to be my friends!.

Thank you once again to you all and good luck to the new Chairman from October 2010 onwards.

Cardiothoracic Dean's Report

Sion Barnard
Cardiothoracic Dean

The first 8 months as the Cardiothoracic Dean have been busy and I am starting to get a better understanding of the role.

The latter part of 2009 was spent giving some feedback to those unsuccessful in the 2009 ST3 applications, much of which had been done by my predecessor, Mr Steven Hunter. I then attended an evaluation meeting, independently run by the University of Birmingham and the take home message from that was that the process is fair, whether evaluated by the applicant or by the assessor. I am also aware that the specialty has a difficult image amongst some medical students, foundation trainees and other specialties, as something that is difficult to get into and have helped (a little) to write a paper to redress this and it has been accepted for publication in the BMJ. The Liverpool SCTS meeting was very successful and I am grateful for those who approached me to comment on my role and also on the National Selection process. Applications were later this year and of a similar number (c.125) to last year. Controversy still surrounds those with experience vs. those with less but who show

promise. It is unlikely that all groups will be happy with it, but I foresee it being refined over several years and it is likely that other specialties will use a similar matrix to address similar problems in their specialty. At the meeting, I presented to trainees a survey I had done, of all the UK centres, to show how realistic a combined (i.e. cardiothoracic) post might be in the near future.

A new station, testing telephone communication skills, was piloted in the May round of National Selection which ran smoothly, and 22 ST3 were appointed including 2 academic posts. Feedback for those shortlisted but unsuccessful is being channelled by the West Midlands Deanery (who host the process) to me and I hope to contact those applicants and give constructive feedback soon. Already we are working with the Department of Health to plan the 2011 applications: there is likely to



be a similar number of posts next year and a concern with this glut, is that the quality of appointed applicants may diminish, particularly in comparison to previous years. More sophisticated statistical measures will be introduced to help and maintain quality. The busy month of May rounded off with the part III exam in Nottingham, where I was an observer but hope to take

part as an examiner in the next round in Manchester in October. Throughout the 8 months I have been contacted by a number of overseas trainees wishing to come here to train. This is more difficult than in the past due to Home Office regulations but it is still possible to place trainees for a limited time.

I can be contacted to discuss any training issues, preferably by email at Sion.Barnard@nuth.nhs.uk and also would welcome comments on how you would like to see the role develop.

2010 Annual Meeting

*Simon Kendall
Meeting Secretary*

First of all, a big 'thank you' to each and every one who was involved in the meeting, particularly to everyone who registered and made the meeting so worthwhile – 560 registrants and that doesn't include the exhibitors and medical students, making it the best attended AGM to date.

The inaugural **SCTS University** started early on the Sunday morning, opened by **Sir Bruce Keogh** and **Maura Buchanan**, Medical Director of the NHS and President of the RCN respectively. Ian Wilson had attracted an outstanding and enthusiastic faculty from Europe, USA, Ireland and the UK and all the sessions were fully subscribed, so much so that the allocated rooms were not big enough to satisfy demands. Ian's report gives the full story, but after such a strong start we will strive to deliver another successful university next year, with particular attention to suitably sized rooms!

For the third year it was a pleasure to have the **Association of Cardiothoracic Surgical Practitioners (ACSA)** choosing to have their AGM in conjunction with the SCTS. Their new president **Toby Rankin** (Plymouth) had compiled an excellent agenda which attracted more of his colleagues than ever before, many of whom also enjoyed participating in the university.

The **cardiothoracic surgical trainees meeting** was very popular, even though it meant less time for the trainees in the university sessions. We will avoid such a clash next year but it is a credit to Sunil Bhudia how much he has developed the trainees' meeting before starting his consultant's job at the Walsgrave Hospital. After tea on the Sunday, **Dr Hugo Vanermen** gave the his lecture on the role of minimally invasive valve surgery prior to the annual business meeting.

This year the welcome reception was unique; not only did we have the generosity of the Mayor of Liverpool hosting the reception but we also had a fellow cardiothoracic surgeon providing the entertainment. **Chris Satur** (Stoke)

brought his orchestra from the University of North Staffordshire to give some vibrant renditions of many popular tunes and hopefully will do an encore in Manchester, 2012.

After a very cold and prolonged winter it was extraordinary to see blue sky and sunshine on every day of the meeting. The smart new convention centre lent itself to a successful meeting and behind the scenes the staff could not have done more to help proceedings run smoothly.

For a fifth year in succession we were delighted that the **database managers** should hold their meeting with ours, hosted and organised by **Tracy Smailes** (Middlesbrough) and **Philip Kimberley** (Royal Brompton). They received updates from the data group as well as hearing three papers from Liverpool, St Georges and The Royal Brompton.

As you will have read in Tara Bartley's report, the cardiothoracic forum had another successful year and hopefully that this will go from strength to strength with more associate members joining the society. The quality of the forum is underlined by the high profile speakers that it attracts along with the continued involvement of the president of the RCN. Despite the recession we had outstanding support from industry. In her first year Tilly Mitchell successfully designed and filled the exhibition area, and as if that was not enough there were four industry sponsored breakfast / evening symposia that further complemented the academic content of the meeting.

When the programme committee met in November it appeared entirely sensible to have themed sessions and that revascularisation should precede **Dr Michael Mack's** presentation on Syntax in the main auditorium. However we did not foresee the interest that would be generated in the TAVI session by Dr Mack



presenting the USA perspective. Several delegates were understandably disappointed at not being able to get into

After a very cold and prolonged winter it was extraordinary to see blue sky and sunshine on every day of the meeting, and the smart new convention centre lent itself to a successful meeting

the room as it had exceeded its safety capacity. As meeting secretary I never envisaged the day when the convention centre would have to deploy a health and safety representative (a.k.a bouncer) to calm the situation. A lesson learnt and a sincere apology to all of you who were affected.

Our patient representative **David Geldard** had worked hard throughout the winter months to recruit patients from the North West to take part in the patients' forum. They were welcomed by Sir Bruce Keogh and Maura Buchanan and listened to five relevant presentations before and after lunch. These sessions were greatly appreciated and it is David's intention to build on this success for next year.

LIVERPOOL 2010

The **medical students' poster competition** was initiated and organised by **David McCormack** (NTN London) – there were forty three submissions for this competition, of which twenty were exhibited along with all the other posters in the exhibition area. Ten of these posters were short listed and the students presented their poster to a panel of judges during lunch on the Tuesday. All twenty medical students were given free registration to the meeting and also given some assistance to enjoy the Liverpool nightlife on the Monday night along with the six medical students from Liverpool who helped with the running of the meeting. This was a great addition to the meeting and is hopefully attracting potential colleagues for the future.

We were fortunate that our guest thoracic surgeon was the eminent **Dr Valerie Rusch** from New York who presented the USA perspective on surgery for mesothelioma. That contribution continued on Tuesday with the thoracic surgical lecture on the new TNM classification for lung cancer. Altogether there were forty papers on thoracic surgery with contributions from most thoracic centres in the United Kingdom and Ireland.

Indeed there were a total of 140 papers presented of the 270 abstract submitted. These are all scored independently by 5 reviewers and then allocated to sessions by the Lead Reviewers at the Programme Committee Meeting. We will stick with the same timetable next year – with abstract submission open from September 1st and closing at midnight on Bonfire night, November 5th.

Our annual meeting continues to develop strong links with the **Society for Clinical Perfusion Scientists** who opted to hold their college workshop on the Monday of the meeting and then have a committee meeting for their society (SOPGBI) on the Tuesday.

The parallel sessions do fragment the meeting to some extent but it does allow the sub-specialties in our areas of

expertise to concentrate on their own agenda. For the third year Andrew Parry (Bristol) organised specific **congenital cardiac surgical sessions** with paper presentations, a workshop on transposition anatomy with the help of Dr V Teo from the Rayne Institute and presentations on the mechanical assist devices from Asif Hasan (Newcastle) and cardiac protection of the developing heart from Professor Suleiman.

This year's programme for cardiac surgery was significantly enhanced by symposiums organised by colleagues: Gavin Murphy attracted high profile speakers including the author of the BART study **Dr Dean Ferguson** who talked on the management of severe bleeding following cardiac surgery; Graham Cooper and Bob Bonser organised a cardiac workshop discussing whether surgery on the aorta should be a regional service and Marjan Jahangiri delivered an insightful symposium on patient prosthetic mismatch.

The formal part of the meeting was concluded by Leslie Hamilton's address with his reflections on our speciality and his thoughts for our future.

The annual dinner was held at the brand new Hilton hotel where we took the risk of having some musical entertainment with a tribute Beatles band (from Bristol!). The race night theme seemed to be quite popular, and as ever there were questions about race fixing and illegal gambling. Medals were awarded to last year's winners. The winners of this year's awards were announced (Page xx).

Deirdre Watson (Norwich and Papworth), who has retired to live in the Wirral, summarised all of **Professor Peter Goldstraw's** career achievements before he was awarded his lifetime achievement award. It was humbling to listen to his achievements and also his wise words with regard to cardiac and thoracic surgery remaining in strong partnership (or is that coalition?).

It only remained then for Leslie Hamilton to hand on the badge of office to Professor David Taggart to begin another new era for our society.

We have had a lot of very positive feedback from this year's meeting and some useful suggestions how we can change things for next year at the London Excel Centre, March 20th – 22nd 2011. We hope to see you then!



scts University



The SCTS University was launched on 7th March 2010, immediately prior to the SCTS Annual Meeting in Liverpool.

The initiative was opened by Sir Bruce Keogh,

Medical Director of the NHS, Maura Buchanan, President of the Royal College of Nurses, and Leslie Hamilton, President of the Society for Cardiothoracic Surgery of Great Britain & Ireland.

These highly influential figures within the NHS stressed the value of ongoing postgraduate education and welcomed this development within cardiothoracic surgery, whilst emphasising the importance of the multidisciplinary format that had been designed to reflect the nature of our specialty working practices. Four educational streams were developed at this year's meeting by enthusiastic chairmen, supported by a hugely experienced international and national faculty.

There were four parallel educational streams within the programme:

- **Atrial Fibrillation Surgery**, chaired by Malcolm Dalrymple-Hay and Peter Braidley
- **Degenerative Mitral Valve Disease**, chaired by Chris Munsch and Ben Bridgewater
- **The Ross Procedure**, chaired by Andrew Parry and Asif Hasan
- **Contemporary Thoracic Surgical Practice** chaired by Rajesh Shah

All sessions were over-subscribed, demonstrating an enormous appetite for this postgraduate educational forum; such demand did cause some logistical difficulties which were handled extraordinarily well by both Isabelle Ferner and her team, as well as the tremendously accommodating staff at the Liverpool Arena and Convention Centre. The

organising committee took the stance that we did not wish to deny delegates the educational opportunity, but we have learnt from these experiences and will expand capacity for next year.

Over 250 delegates attended this year; 30% consultants, 50% trainees, and 20% ACSA members. This was a remarkable attendance and was testament to the quality of the assembled faculty.

1 The Atrial Fibrillation Surgery educational stream

This was opened by **Steve Furniss**, describing the importance of atrial fibrillation in twenty-first century clinical practice. **Professor Maurits Allesie** allowed us a fantastic insight into the substrate of persistent atrial fibrillation in humans with structural heart disease, whilst **Professor James Cox** explored the history of atrial fibrillation surgery, including a detailed understanding of the lesion sets critical to successful restoration of sinus rhythm. **Dr Nicolas Doll** and **Dr Thorsten Hanke**, analysed contemporary energy source delivery, and **Professor Michael Mack** combined with a national faculty to describe and demonstrate a Cox Maze IV procedure.

These highly influential figures within the NHS stressed the value of ongoing postgraduate education and welcomed this development within cardiothoracic surgery,

These assembled world authorities in the management of atrial fibrillation were joined by a national faculty of cardiothoracic surgeons with a huge wealth of experience in atrial fibrillation surgery, both concomitant and stand-alone, offering an almost unique opportunity to explore and understand "state of the art" patient care delivery. The support from Steve Large, Sam Nashef, Steve Hunter, Paul Ridley, Mike Lewis and Doug Aitchison allowed a small group "Hands-On – Minds-On" teaching style which ensured delegate interaction with these authorities in the field; this was greatly appreciated by delegates and faculty alike, who all enjoyed a vibrant highly informative educational experience.

2 The Degenerative Mitral Valve Disease educational stream

This was similarly structured, by means of small group sessions facilitating discussion and interaction with a very experienced national and international faculty.

Alain Berrebi led a session demonstrating contemporary mitral valve interrogation, utilizing TOE manikins for "Hands-On" personal tuition. Alain was supported by four ACTA members, Donna Greenhalgh, Niall O'Keefe, Tessa Oelofse, and Peter Townsend; together they delivered a superb overview of the essential components of mitral valve interrogation pertinent to cardiac surgeons practicing mitral valve repair.

Jean-Louis Vanoverschelde and **Hugo Vanermen** assisted Ben Bridgewater in a session exploring the rationale for surgery, the timing of mitral valve intervention and the development of contemporary mitral valve surgical practice, whilst Neil Moat and Ramesh Patel led a session on mitral valve functional anatomy and the spectrum of degenerative mitral valve disease; recognising how the range of lesions impact surgical management and the choice of prostheses utilized in repair.

Ian Wilson
Deputy Meeting Secretary

Frank Wells created a beautifully designed session, supported by Steve Livesey and Malcolm Underwood, demonstrating the essentials of mitral valve repair in a detailed “Hands-On” forum.

Operative approaches were explored within a session including Hugo Vanermen, Chris Munsch and Moninder Bhabra. A full range of approaches to the mitral valve were demonstrated, from the standard incisions to the lesser invasive techniques; this offered an astute in-sight into the “top tips and tricks” used within daily practice to optimise views and maximise exposure.

Graham Venn, Prakash Punjabi, Alain Berrebi and Jean-Louis Vanoverschelde then concluded the educational stream discussing difficult intraoperative decision making; including the management of a calcified mitral valve annulus, avoidance and management of SAM, and management of residual postoperative mitral valve regurgitation, alongside many other topics.

The dynamic nature of the educational streams encouraged highly interactive dialogue between faculty, experienced delegates and junior delegates creating a wonderful environment for learning.

3 The Ross Procedure educational stream

This stream was supported by NHSBT Speke, who collected 25 human cadaveric hearts, offering an absolutely unique opportunity to perform the Ross Procedure under the guidance of some of the most experienced Ross Procedure surgeons in the country. The faculty of Asif Hasan, Andrew Parry, John Anderson and John Pepper, delivered a truly exceptional educational stream covering the indications for surgery, the history of the procedure, the results of the Ross procedure, as well as an educational “How-to-do-it” video, and two

SCTS UNIVERSITY



opportunities to perform the Ross Procedure, one as first assistant, and one as first operator.

The participants enthused about this educational stream and the structure within the programme; the SCTS is indebted to NHSBT Speke, for the opportunity to work with the cadaveric hearts, and we are all enormously grateful to Kevin Austin and Wet Labs for setting up the session so expertly.

4 The Thoracic Surgical Practice educational stream

This stream was constructed to cover a spectrum of contemporary and thought-provoking issues within the specialty, utilizing an extremely experienced national and international thoracic surgical faculty. International guest involvement included **Valerie Rusch**, Memorial Sloan-Kettering, New York, and **William Warren**, Rush University Medical Centre, Chicago.

Richard Page chaired a practical session which included evaluation and demonstration of **Endobronchial Ultrasound**, led by Dr Robert Rintoul and Dr Mohammed Munavvar, whilst William Warren and Maninder Kalkat ran a parallel practical session covering the practical aspects of Airway Stenting.

“How to do it” sessions were chaired by Sion Barnard and Pala Rajesh. These presentations covered VATS lobectomy, delivered by Bill Walker, and chest wall reconstruction, delivered by Valerie Rusch, offering delegates a wonderful opportunity

to understand and clarify the technical aspects and complexities of these procedures.

The educational platform also included a highly interactive session on The Evidence Based Multidisciplinary Management of Lung Cancer, chaired by David Waller and William Walker. This session utilized the highly experienced assembled faculty as an expert panel, and also included UK physicians Paul Taylor, Joe McGuire and Klaus Irion, with presentations from Juliet King, Ed Black, Ehab Bishay, Antonio Martin-Ucar, and John Edwards to analyse the more contentious aspects within current day thoracic surgical clinical care. The turn-out to the thoracic session exceeded all expectations with over 70 attendees in the hall during the morning. The educational material was very well received and has created great interest for future years.

The SCTS organising committee is highly appreciative of all the efforts made by the faculty members, and recognises the time and dedication required to deliver the quality of material that was achieved this year. Educational material from these educational streams will be made available on www.sctsuniversity.org in the near future.

Huge thanks have to go to all the corporate support that the SCTS University project received this year. Cardiothoracic corporate support is a necessity to allow this initiative to develop and the support that we received this year was truly spectacular. It is only with this level of support that a free educational days activity can be provided for our SCTS membership, and our affiliated society members, and we are indebted to all those who contributed to what proved to be a highly successful inaugural SCTS University programme.

We have learnt from our mistakes this year, and have developed an even more extensive programme for SCTS University 2011.

SCTS University 2011

Ian Wilson
Deputy Meeting Secretary

In 2011 we will have more educational streams, and international guest speakers have been approached and provisionally accepted the invitation:

- Ischaemic Mitral Valve Surgery**
 Professor Irving Kron, University of Virginia, leads the “Comparing the Effectiveness of a Mitral Valve Repair Procedure in Combination with Coronary Artery Bypass Grafting (CABG) Versus CABG Alone in People with Moderate Ischemic Mitral Regurgitation” study, and is a world authority on the management ischaemic mitral valve regurgitation.
- Aortic Dissection Surgery**
 Professor Lars Svennson, Cleveland Clinic, has one of the largest international clinical practices in Aortic Surgery, with a huge experience in open repair and TEVAR technology.
- Contemporary Thoracic Surgical Practice**
 A wide range of contentious topics within the specialty will be explored

and analysed by a diverse national and international faculty.

- Aortic Root Enlargement Surgery**
 Human cadaveric hearts will be used to reconstruct the Nicks, Manouagian and Konno procedures.
- OPCAB Surgery**
 Professor John Puskas, Emory University, a leader in the field of OPCAB surgery, will give an insightful review of the results of the ROOBY trial and all aspects of OPCAB surgery in twenty-first century clinical practice.

Parallel lunchtime sessions will cover contemporary, contentious areas of cardiothoracic surgical practice, with topics including:

- Endoscopic vein harvesting; Does striving for improved cosmesis threaten vein graft patency? including analysis of the ROOBY trial and the EPIC trial.**
- Intraoperative Graft Evaluation; How, When, Why?**

- Patient Prosthesis Mismatch; A Myth or Clinical Reality**
- Minimised Extracorporeal Circulatory System**
- Management of Persistent Postoperative Air Leaks**

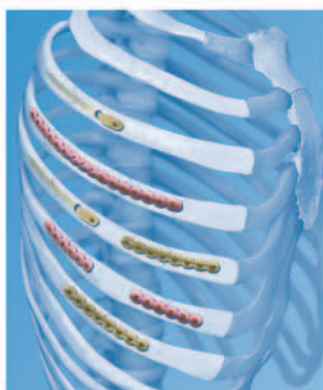
With such a wide variety of topics within next year's programme we hope that there is material suitable for all members of the SCTS. We aim to have a dynamic format once gain affording the opportunity for senior and junior members to discuss these contentious areas of contemporary clinical practice with world authorities in the field.

This SCTS University initiative is a programme designed to fulfil the needs of the broad membership of our society and we are keen to have involvement from all members, in next year's programme, and for many years to come.

If you have specific ideas for future years or wish to become involved in educational streams please let me know.

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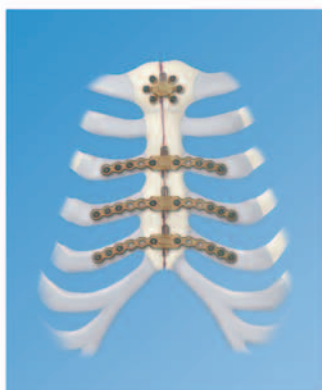


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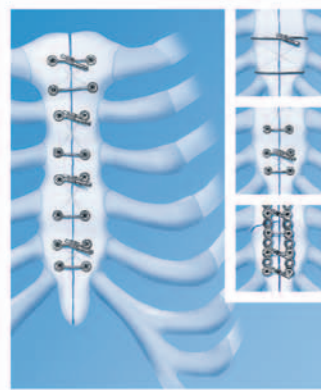


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The Birmingham Professional Development Course

*Steven Woolley
Cardiothoracic SpR, Edinburgh*

The Birmingham professional development course has now been running for 6 years.

Over this time it has gone from strength to strength, after starting as a course for senior cardiothoracic trainees it has developed to include senior cardiology trainees and junior consultants in both specialities. The course aims to discuss areas relevant to consultant practice which are often not well covered during SPR training. This includes topics such as health care policy and NHS structure, dealing with the coroner, performance management, recertification and revalidation and medico-legal issues. The faculty is one of the strengths of the course being comprised of senior clinicians, coroners, solicitors and other invited speakers. Guest speakers at this year's course included Sir Donald Irvine (Past President of the GMC), Professor Sir John Temple (President of the Royal College of Surgeons of Edinburgh), and Professor David Wilson (Professor of Criminal Psychology UCE). All of the guest lectures were very well received. The remainder of the

sessions are very interactive with faculty and delegates being mixed together and discussing issues raised. On the second day there is a consultants interview practice session which I and all the delegates I talked to found very useful. I would highly recommend this course to any senior cardiothoracic or cardiology trainee as it gives invaluable insight into problems you may encounter as a junior consultant. The course is accredited to the Royal College of Surgeons of Edinburgh for 12 CPD points. The course is run annually in October, anyone interested in future courses should contact Jane Brindley (jane.brindley@uhb.nhs.uk).



John F Dark

Abdul Deiraniya, Robert Lawson, John H Dark

President of the Society 1983-84, and Secretary for a number of years before that, John F Dark died on April 9th 2009, a few days short of his 88th birthday.

John Fairman Dark (JFD) obtained both the MB CHB and Part I of the FRCS in 1945. He trained in general surgery at the Manchester Royal Infirmary before embarking on a career in thoracic surgery in his home town. In 1952 (at the age of 31!) he was appointed to the consultant staff of Baguley Sanatorium, later Wythenshawe Hospital as the TB era was drawing to a close.

He carried out paediatric closed heart and very successful surface cooling procedures in the late 50's and early 60's at the Royal Manchester Children's Hospital, Pendelbury and from 1967-1977 led the open heart surgery programme at the same hospital. More than 500 children between the ages of one and sixteen years were operated on in those ten years. Thereafter he continued with closed heart paediatric surgery until 1982. His contribution to the establishment of the Cardiothoracic Unit at Wythenshawe Hospital is immense. He was an accomplished pulmonary and oesophageal surgeon with a large number of closed

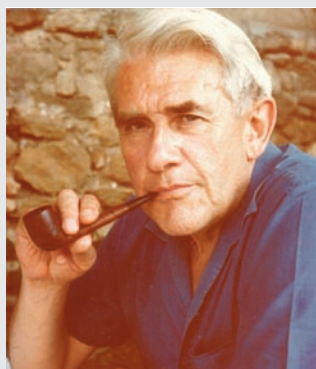
mitral valvotomies to his credit before he started the open heart surgery programme. His career spanned thoracoplasty to heart transplant

Largely self taught, JFD honed his skills by visiting American cardiac surgical colleagues in US clinics, counting luminaries such as Mustard and Cooley amongst his wide circle of friends. His excellent surgical results bore witness to the success of these visits and his determination to remain fully conversant with new techniques and procedures.

As Secretary, he ran the whole business of the Society single handed for many years, and then Presided over the hugely successful Dublin Meeting in 1984. He rarely missed a meeting over four decades and attended into his 80's.

JFD was an early advocate of surgical audit, and was a co-author, with Terence English, on the 1984 BMJ paper describing the Cardiac Surgical register. As early as 1976 Wythenshawe Hospital had a surgeon

specific audit of all cardiac surgical procedures that included 30 day and one year survival. As young consultants then audit enlightened and motivated us but did not hold us back from accepting high risk patients.



Bob Lawson remembers "Joining an experienced cardiothoracic team as a young consultant in 1977 was made a much less daunting prospect by John's generous surgical advice and personal kindness. He scrubbed up to successfully help me with my first very difficult emergency and later offered an impecunious newcomer with four young children his holiday home in Dumfriesshire for a summer break. In recent years when John visited our home he always arrived with a bowl of his own home made and very tasty soup.

Abdul Deiraniya remembers "John's enthusiasm was a major factor in getting the Transplantation started at Wythenshawe in 1987 and keenly supported our earlier bid in the early 80's. He scrubbed in with me on the second transplant to be done at Wythenshawe"

SCTS Cardiothoracic Forum Annual Meeting 2010

This year's Cardiothoracic Forum ran with the theme 'Excellence in Practice', the essence of which was to underpin the Quality Agenda in the NHS. Liverpool proved to be a lively venue that drew delegates from around the UK and Ireland, so yet again we can boast that this was the largest meeting to date with over 580 delegates and an increase in attendance of 20%. The Liverpool Arena and Convention Centre was a great venue not least for its location within the Albert Dock.

Maura Buchanan honoured us in her final year as President of the RCN. Not only did she agree to deliver the opening remarks for the Forum, but she and Sir Bruce Keogh opened the SCTS Universities on the Sunday morning. As we have come to expect, Maura's remarks highlighted that the key to delivering good patient care is the partnership and mutual respect among health professionals. The theme of her opening remarks was **Care** and the core components were **Dignity, Compassion, Quality, Safety and Respect**. Maura's comment that dignified care begins with separate sex accommodation drew upon the comparison that while Africa achieves 100% separation the DOH figure for the UK and Ireland is only 97%. Moreover, she stressed the importance of compassion in all that we do to patients and mentioned that quality is judged by the patient experience, our effectiveness and safety of care. The key to safety was leadership and decision-making and respect was a mutual process.

In addition to the engaging Opening Remarks that we have come to expect, Maura proved a great role model for the profession not least because she challenged our then current President, Mr Hamilton, to a game of snooker during one of the social events. Clearly it would be discourteous of me to announce the outcome of the match!

Unfortunately Dr Peter Cater, Chief Executive of the RCN who was to deliver a lecture on Leadership was prevented from joining us at the last minute. **Mr Steve Jamieson**, Head of Nursing Department, RCN kindly stood in. His back to basics

approach should serve to remind us that we must work collaboratively, all members of the multidisciplinary team should be valued equally and the RCN DVD he showed looked at the importance of RCN members exercising their emancipation in the political arena.

After lunch we were treated to an inspirational talk and video footage of **'The climb to Everest: lessons from extreme altitude for critically ill patients?'** by Professor Chris Imray, Consultant in Vascular Surgeon at University Hospital Coventry and Warwickshire. The audience was left with the feeling of amazement, as not only did Prof Imray complete the

As we have come to expect, Maura's remarks highlighted that the key to delivering good patient care is the partnership and mutual respect among health professionals.

expedition, but the group collected an array of data which is still being analysed and they also rescued a fellow climber who would have surely perished without their intervention. Not bad for an adventure story!

Ms Wendy Gray, Lead for the Heart Improvement Programme opened Tuesday's presentations sharing the conclusions from the pilot sites around the country that have identified numerous ways to expedite the patient 18 week pathway as part of the Eighteen-Week National Project 'Sustaining Cardiac Pathways'. The various projects have produce a number of practical measures that demonstrate ways to increase efficiency in service delivery so the summary was extremely useful to

delegates in steering development. Information can be found at www.improvement.nhs.uk

Mr David Burrows-Sutcliffe, a high profile solicitor then took to the floor to present 'The Court in Action', and take the floor he did!..... an accomplished actor he commanded the room as if we were all in the high court. The audience were treated to a spectacle of humour and the games that are played out in the court room. In doing so he managed to demystify the intimidating manor that can be used and equip the audience with the skills necessary when one goes into battle in such a domain.

Ms Martine Tune, NMC Professional Adviser, then reminded us of the aspects within the NMC Code of Conduct emphasising the importance of documentation and record keeping so we may avoid circumstances in which we may be drawn into the court room.

This year there were nineteen papers that were submitted from multidisciplinary presenters covering a broad selection of topics. They were of an excellent standard with the audience selecting Best Paper as **Releasing Time To Care - The Productive Ward: The impact of the Process at Papworth**. **Jacqueline Davis**, Papworth Hospital NHS Foundation Trust.

Congratulations to Jacqueline who has been invited to present the paper at this years EACTS meeting in September.

All the papers can be viewed online at the nurses' section of the SCTS website www.scts.org/sections/nurses/index.html

Associate membership

I am pleased to report that the number of Associate members has increased again this year, which reflects the Societies philosophy to be inclusive of all professionals within the Cardiothoracic workforce.

The Annual fee for Associate Membership of the SCTS is £22, (initial administration fee of £25). Members will receive issues of

Tara Bartley
Nurse Representative

the Bulletin, reduced rate to the Annual meeting and other benefits that are outlined on the SCTS web site, including the opportunity to apply for a bursary towards professional development. If you are interested please visit the web site; www.scts.org/sections/nurses/index.html

Other news from the speciality.

Midlands Cardiothoracic Forum

The Midlands Cardiothoracic Forum was held in May with delegates from the five Cardiothoracic centres. The programme included a variety of subjects from Cardiac Rehabilitation, the Productive Ward, the experience of establishing a Trauma Centre and its impact on the Cardiothoracic Unit, Retention of Critical Care Skills, Internal Defibrillators and more. I was able to present the SCTS National Perspective and how this linked with the NHS objectives. The day was supported by Baxter and Hillrom.

Workforce Survey

Provisional data is now being analysed from the **Advanced Nurse and Allied Health Professionals Survey** examining the role and skill development that has taken place since the workforce survey in 2007. Early results would suggest that teams of Allied health professionals have been established and service delivery from this cohort has expanded, blurring the traditional professions boundaries.

The new SCTS Web site

I am please to tell you that the new SCTS limited web site, www.sctsltd.co.uk, is up and running with a nurses and allied health professionals discussion fora. If you have a subject you would like to invite comment on, share work or if you have a project and are keen to find out what other units are doing I would encourage you to use this resource.

I will of course be happy to continue to send out emails to those on the database on your behalf if you would like to gather information.

The Delivery of Quality Care

The NHS Quality Agenda from the Department of Health now has in the region of 200 quality indicators within 10 dimensions. The Acute Care dimension incorporates many aspects related to the Cardiothoracic speciality, examples of which are Access to diagnostics; Medications; Thrombolytic therapy; Surgical Site Infections; 30 day mortality 1st time CABG and Valve Surgery; Falls; Pressure Sores; Urinary infections from Catheters; Readmission of Patients; Rehabilitation and Smoking cessation.

In March this year the then Prime Minister's Commission published the report on the **Future of Nursing and Midwifery in England, 'Front Line Care'** which has seven themes;

1. High Quality Compassionate Care
2. The Political Economy of Nursing
3. Health and Wellbeing
4. Caring for people with long-term conditions
5. Promoting Innovation
6. Leading Services
7. Careers in Nursing

www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_085825

It goes without saying that as we enter an uncertain political phase with the emphasis on reduced public spending health professionals will be asked to deliver more front line care from the same if not reduced resources. It is crucial to remember the importance of effective leadership and team work to deliver excellent care but I would like to conclude with the words from Maura Buchanan, outgoing President of the RCN in her opening remarks at this years Forum "Quality care does cost money but lack of it will cost lives".

If any of your colleagues would like to add their names to the SCTS Allied Health Professionals database so they can receive the emails that are sent out then please forward there name, address and title to me at tara.bartley@ntlworld.com



The External Aortic Root Support (EARS) Project

Tal Golesworthy, Tom Treasure, John Pepper, Peter Gibson

Tal Golesworthy knew about his Marfan Syndrome since childhood when his subluxed lens was diagnosed. It was realised that it was the same problem as his father's from whom he had inherited the disorder. After volunteering for a genetic study in people with Marfan syndrome being run at St George's Hospital in 1992, Tal learned that his ascending aorta was dilating. Annual measurements of the aorta showed a steady increase in diameter from about 4.4 cm in 1992 to about 5 cm in 2002.

Unhappy with the existing surgical options, and in particular with the prospect of life-long anticoagulation offered by the cardiologist he was seeing, Tal decided to evaluate alternatives. He was well aware of the ever improving quality of MR imaging and from his own R&D activities as a design engineer he was very familiar with opportunities offered by Computer Aided Design (CAD) and Rapid Prototyping (RP). Tal put together a project proposal to use MRI, CAD, and RP to manufacture a bespoke external support for the ascending aorta. The External Aortic Root Support (EARS) project was born. Put simply he took the view that if the problem



is that the pipe is weak in tensile strength, why not support it externally with a bespoke sleeve in a suitable material?

Tom Treasure was giving a talk to the Marfan Association Information Day at St George's in 2000 when he was questioned at the end of the lecture by Tal with the above proposal. Tom was rendered uncharacteristically silent, unfamiliar with a whole set of acronyms and initials new to him; CAD and RP were a whole new language. But with some further talk after the lecture, he was enlisted into the project. Together we took the idea to

Professor Bob Anderson to take a serious look at the anatomical feasibility. We then approached John Pepper at

Royal Brompton who joined the project. A fully costed R&D proposal was worked up and Imperial College were contracted in to assist with the CAD work. Two approaches to the British Heart Foundation and other sources failed to raise any funds so Tal started a company to sponsor the EARS project and raised sufficient capital from private investors to run the feasibility project.

The EARS implant and its manufacture

Existing MRI techniques were used to acquire suitable images and an image acquisition protocol was developed with the Cardiac MR unit at the Royal Brompton Hospital. A CAD routine was then developed to process the MR images and reproduce a bespoke CAD model of Tal's own aorta. With the imaging and CAD functions in place, Rapid Prototyping/Rapid Manufacturing was investigated. Tal had worked with the Rapid Manufacturing centre at Exeter University so was familiar with some of the techniques available. Various RP/RM methods were investigated including Fused Deposition Modelling (FDM) and Stereo Lithography (SLA) before Selective Laser Sintering (SLS) was settled on. The combination of medical imaging, CAD and RP technology allowed the production of one-off patient specific manufacturing formers in a short time frame. Implant material selection was another important consideration. We already had the material used in vascular grafts, tried and tested for many years. This fusion of technology is critical to the EARS project's viability.

The feasibility of the EARS project was proven when Tal Golesworthy was the recipient of the first EARS implant on 24



May 2004 by John Pepper at the Royal Brompton Hospital. Since then another 19 patients have been successfully treated.

Key technical points are that the external support is much softer than familiar vascular grafts. It bears scant resemblance to the "wrap" operations of Robicsek where stiff graft material is cut and sewn and, it must be said, relatively crudely. The external support we use is a flexible mesh with a pore size of about a millimetre. It has more than sufficient hoop strength to prevent expansion. It is positioned right down at the aortoventricular junction. The graft is cut so that the coronary arteries come through small radial incisions and there is no hard edge to impinge on the coronary arteries. It has no abrupt suture line to join it to the distal aorta but effectively tapers onto the aortic arch beyond the brachiocephalic artery. We envisage that the material will be incorporated onto the aortic adventitia, although we are pleased to say that to date we have had no opportunity to check this belief, either at reoperation or autopsy.

Aortic dissection is strongly correlated with aortic dimension, so we hope that it will not occur in an aorta held to nearer normal size, but should a supported aorta dissect the mesh would save the patient from free rupture into the pericardium and death by tamponade. The supporting mesh will be no obstacle to any revision surgery and should make any suturing more secure. This is speculation of course, but after 20 operations we are increasingly confident. Meticulously collected aortic measurement to a very rigorous protocol in the first 10 patients seem convincing to us and the evidence can be seen at: <http://icvts.ctsnetjournals.org/cgi/reprint/10/3/360>

More information is available on: <http://www.exstent.com/> including video clips of the operation.

The Working Group on Thoracic Surgical Audit

Richard D Page
Working Group Chairman

Thoracic surgical audit for the SCTS continues to develop. Since 2002, well over 95% of UK and Ireland activity has been captured as the Thoracic Register. The first Thoracic Blue Book was published in 2008.

Thoracic Register returns for the years of activity between 2005 and 2008 are now complete and have been published on the SCTS website. For 2008-9 activity, at the time of writing returns are still awaited from 4 out of the 41 active units (Barts/London Chest, Cork, Hammersmith, and Hull).

The Register shows a steady increase in the amount of thoracic surgery carried out in the UK and Ireland over recent years. Despite the introduction of PET scanning there has been an increase in the number of primary lung cancers treated surgically; in 2007-8 there were 4333 resections. I believe this indicates an increase in access to thoracic surgery for patients being assessed for lung cancer treatment, particularly with the creation of a significant number of new consultant posts with a thoracic interest. In contrast although interest in VATS lobectomies for primary cancer has never been higher, over 90% of resections are still carried out via traditional open techniques.

For the 2009-10 returns, the Register will be expanded slightly to monitor activity in other specific areas of practice, for example mesothelioma, tracheal and mediastinal surgery, as well as capturing specific operations of interest for example lung reduction surgery and pectus repair.

The number of Units able to contribute to the SCTS dataset has increased steadily with a total of 13 out of the 41 currently active thoracic units having contributed (Barts/London, Blackpool, Bristol, Coventry, Dublin Mater, Dublin St James, Exeter, Liverpool, Middlesbrough, Sheffield, South Manchester, UCLH and Wolverhampton). Between the years 2005-9 patient specific data on 3107 resections for primary cancers were reported by these units, making the possibility of a UK model of risk stratification becoming available soon.

Although other hospitals may come on stream for 2009-10 data the main theme from Units unable to contribute is the absence of an infrastructure for thoracic surgical data collection within hospitals. I had been optimistic that this deficit could be corrected by allowing the SCTS dataset to be incorporated into the current on-line European Society of Thoracic Surgeons database. Unfortunately this has not been possible due to the issue of patient details having to be sent outside the country which is a clear risk to patient confidentiality. Although a specific online system may become available for use by SCTS members, I am grateful to members for continuing with the current system which involves sending an Excel spreadsheet for their Unit's annual activity.



The 2009 LUCADA report (which produced some details on surgical activity from data collected via lung cancer MDT's) criticised the large variation in the surgical treatment of lung cancer throughout the country with resection rates varying from 3% to 30%. Although some of this variation can be explained by patient factors, data inaccuracy and inconsistencies in definitions, the differences in access to thoracic surgery undoubtedly play a part. I believe that increasing the attendance of thoracic surgeons at lung cancer MDT's and ensuring that there are enough surgeons in the country who have sufficient time and facilities to help treat patients effectively will go a long way to correcting improve this inequity for patients, and help improve overall cure rates. Accurate data is essential when arguing the case for more thoracic surgical staff and facilities and encourage all surgeons to contribute as much as possible to all data and audit initiatives looking at thoracic surgical practice within their hospitals and throughout the country

Richard D. Page
SCTS lead for Thoracic Surgical Audit

The Fit Note

Isabelle Ferner

The Society has been asked to draw the attention of its membership to the new Statement of Fitness for Work (or fit note) launched on 6 April this year. Whilst secondary care doctors do not write as many medical statements as our primary care colleagues, there are occasions when this is entirely appropriate and necessary.

Dr Bill Gunnyeon, Chief Medical Adviser to the Department for Work and Pensions, has written to all Chief Executives and Medical Directors of NHS Trusts in England and Chief Executives of Health Boards in Scotland and Wales in order to communicate the changes being made.

Further information on the Statement of Fitness for Work is available online at www.dwp.gov.uk/fitnote.

Progress with the SCTS database agenda

Recent months have seen much 'behind the scenes' activity from the SCTS database committee, which led to updating the Care Quality Commission public portal showing surgical results in May 2010.

The portal now contains data on patients undergoing surgery up to the end of March 2009. For the first time the analysis of this data was undertaken at the National Institute for Clinical Outcomes Research, at University College, and we would like to thank Dr Owen Nicholas for his help and expertise with this, and also acknowledge the considerable work of the CQC to bring this to completion. The process included developing techniques to reproducibly obtain successful extracts of the data from CCAD, refining systems for cleaning the data, undergoing iterative loops to validate the raw data with the units, generating a recalibrated Logistic EuroSCORE risk model, attributing all cases to rational consultant identifiers, analysing risk adjusted outcomes, and then undergoing further validation with the units. Whilst this process was laborious we have learnt a lot about the data and the 'data pipeline' necessary for these analyses, and discovered specific issues with some unit's data which have now been resolved. We are now working with the CCAD team to feed this learning back to evolve the CCAD software. Our aim is that subsequent analyses for the public portal should be by the 'click of mouse' which will enable an extract of the analysed data to the agreed methodology, which will already have been validated by the units.

For the first time the analysis of this data was undertaken at the National Institute for Clinical Outcomes Research, at University College

To achieve this we are implementing learning including issues about duplicate records, attributing operations to hospital spells and mortality to procedures, and developing automated regular feedback from CCAD to the units: the current target is for data to be submitted 3 months in arrears, so that patients undergoing surgery up to the end of March 2010 will need to be submitted by the end of June. These submission deadlines are every three months through the year. Successful submission of data by the deadline will lead to a feedback report to the units which will include an analysis of activity, data quality, crude and risk adjusted mortality (based on a recalibration of the logistic EuroSCORE using coefficients from 2004 to 2007 data). In this report the unit and each surgeon will be able to see how their outcomes compare to those expected at varying levels of variance. Hopefully this process will prevent any nasty surprises at the time of updating further publications of data, either about data quality or clinical outcomes. We hope to have a first draft of this methodology to test in July this year.

Whilst the process to update the portal has been somewhat slow, a better understanding about the detail has enabled us to progress a number of other issues around the database agenda. An ability to provide easy extracts of the data, and a clear understanding of its strengths and limitations, has led to the initiation of a number of projects. All of these are underpinned by the desire to make the data more accessible to support patient care and quality improvement.

We know, for example, from clinical observation that existing risk models do not predict accurately for some categories of patients, and it is unlikely for a number of reasons that they ever will. We are therefore working on developing a 'look-up' methodology for the database, which will allow instant access to bespoke queries. This will enable clinicians to enter



specified patient risk factors and proposed operation details for a patient, to gain information about the number of patients in this database who match those characteristics, along with their mortality and other outcomes (including post-operative complications and late survival). As well as giving 'real' data on outcomes this methodology will give an indication of the certainty of that prediction (from the number of patients in that group), and we hope to be able to provide this information via the internet for both pooled national data, and for the practice of the relevant institution. We would hope this will support multi-disciplinary decision making and informed consent for patients. The idea seemed to be well received when floated at the Annual Meeting in March and the project is now in progress.

We have also developed a strategy to develop research outputs from the data. Some researchers have approached the SCTS database committee to undertake analyses and for the moment we have restricted the projects to a relatively small number, and researchers who have a demonstrated ability to manage large databases. We have obtained the appropriate permissions to utilise the data for these purposes, and each project is underpinned by an SCTS data sharing agreement, which describes the project, proposed methodology and compliance with data protection and governance issues. These applications are scrutinised and approval is granted by the SCTS database committee. We currently have projects underway on the changes in patients and outcomes for AVR, predicting outcomes following AVR, outcomes of

Ben Bridgewater
On behalf of the
SCTS Database
Committee

BSET Endovascular fellowship report

Neil Roberts

biological/mechanical valves for AVR, a propensity matched mitral repair/replacement study and analyses of on-pump/off pump and multiple arterial grafts for CABG surgery. We would hope that all of these projects will be completed this year and will be seeking wider input from the membership to contributions to the manuscripts. We are also looking to instigate projects to inform and support TAVI programmes.

We have also been successful in securing funding from Heart Research UK for an analyst to support the SCTS database agenda, and we are in the process of recruitment. It is planned that this analyst will pursue some themes under the direction of the SCTS database committee on behalf of the SCTS executive, which will include exploring and refining the methodologies for analysing and presenting clinical outcomes data and linking SCTS data with other datasets (such as administrative data and other clinical datasets). We also intend to make a proportion of time available to support research proposals from members of the SCTS. We would like to hear expressions of interest from members who wish to conduct projects on the database, either utilising the SCTS analyst, or using their own expertise and resources. Further information is available from Ben Bridgewater via sctsadmins@scts.org.

Finally James Roxburgh has led a project to update the SCTS dataset, to account for limitations in the existing dataset resulting from advances in clinical practice, some conflicts in the existing dataset, and the learning from the various analyses we have undertaken. The new dataset is available at www.scts.org. We plan to implement this dataset from April 1st 2011, and are in process of devising a change management strategy to support this. Further information is available from James Roxburgh at James.roxburgh@gstt.nhs.uk.

The face of cardiovascular treatment is changing, and now more than ever the title of Michael Mack's paper "Fool me once shame on you, fool me twice shame on me" rings loud in the ears of cardiac surgical trainees.



Transcatheter Aortic Valve Implantation is growing exponentially, the treatments of thoracic aortic aneurysms and complicated type B dissection are now often endovascular in the first instance, and hybrid procedures are evolving to treat pathology in the aortic arch. Experience of these procedures are not easily accessed by the cardiothoracic trainee, nor are wire skills or techniques to provide the correct access or deal with the complications of peripheral vascular access at femoral, axillary or iliac level. Endovascular therapies cross the traditional speciality borders of cardiac surgery, cardiology, vascular surgery and interventional radiology. Hence funding for training across different departments is difficult to achieve within a training programme.

This is where the British Society of Endovascular Therapy (BSET) is exceptional. They have been generously supported by Cook Medical to provide 3 endovascular fellowships which are open to applications from trainees across specialities. The applicants are predominantly from vascular surgery and are reasonably competitive (15 shortlisted for interview for 3 jobs), but applications from other specialities are encouraged and given a fair hearing.

I was awarded one of the fellowships in 2009 and spent the time at St Mary's Hospital in London. I was based in the department of vascular surgery and worked on the vascular registrar on call rota which was an added extra in terms of learning opportunities available. The fellowship allowed me to spend time in theatre, the radiology angiography suite as well as in the cardiology catheter lab to experience a range of endovascular procedures. The department has a large workload and an international reputation in endovascular management of the whole

aorta. I gained experience in treatment of the thoracic and thoraco-abdominal aorta with open surgery, endografts, branch/fenestrated technology and hybrid surgery both of the arch and thoraco-abdominal aorta. I also assisted in TAVI cases using Corevalve and the Edwards device, transfemoral and transapical. I attended the Endovascular and TAVI MDT

meetings, discussing many cases each week which provided excellent training in what is possible, how to do it and most importantly of all how to plan an endovascular case safely.

One of the most interesting parts of the fellowship has been to mix with both industry and endovascular innovators, learning not only about what is currently available, but also about future directions and products. It is not a question of if? but rather how soon? regarding an endovascular solution to the ascending aorta and arch. This sort of technology advance – a modular approach possibly combining transapical TAVI and branched TEVAR is not far away and I would hope our speciality is involved in this exciting field when the time comes.

I would thoroughly recommend post exam cardiothoracic trainees with an endovascular interest to consider a BSET fellowship, further details are available at the BSET website www.bset.co.uk.

I would be happy to be contacted by anyone thinking of applying for an endovascular fellowship in the future at the contact details below.

The fellowship was prospectively approved by the deanery, cardiothoracic SAC and PMETB so for trainees wanting to undertake an endovascular fellowship in the future the precedent is set to count the time towards a cardiothoracic CCT should the individual wish to do so.

Finally I would like to thank BSET and all the consultants at St Mary's across the specialities who made me feel welcome and ensured I had an excellent fellowship.

Neil Roberts neil.roberts3@gmail.com

The climb to Everest: lessons from extreme altitude for critically ill patients?

An account of the Caudwell Xtreme Everest Expedition March–June 2009

After climbing through the night, the red glow of dawn gradually began to fill the eastern sky over Makalu (8,462m). With each breathless step, we had climbed inexorably upwards until eventually we crested the South Summit. There was only a short distance along a twisting knife edge snow ridge to the infamous Hillary Step and a short distance beyond that lay the summit of Everest. An Xtreme dream was about to be realised.

At 6.30 am on 23rd May 2007, I was one of five members of the Caudwell Xtreme Everest climbing team, who accompanied by our sherpas, reached the summit of Everest (29,035ft or 8,850m) from the Nepalese side.

Science Program

The Caudwell Xtreme Everest Expedition was four years in the planning and is the largest medical research expedition ever undertaken. There were 240 participants, 22 tons of equipment and the total cost of the expedition was approximately £2,000,000. The complex science program investigated the adaptation of the human body as it acclimatizes to extreme altitude, using the shortage of oxygen as a possible model for patients in intensive care units. The expedition also featured in the BBC 2's



flagship science program Horizon. Two one hour documentaries entitled 'Doctors in the death zone' recorded the expedition. Baseline studies in London: Two months before the expedition left for Nepal, the team underwent a week of baseline testing to assess responses to various physical and mental challenges. This was also the final opportunity to test equipment before shipping it to Nepal.

The walk in

There were incredible views of the Himalayan chain as we flew from Kathmandu in a tiny propeller driven plane. Lukla airstrip is angled upwards at 15-20 degrees, meaning not only that it is unfeasibly short, but also that the pilot has only one attempt to get the approach correct. At the airport we were greeted by a chaotic crowd of porters, sherpas, yak drivers and lodge owners awaiting the planes arrival, each vying for potential business. Trekking out of the village, the pace of life slows. We walked for a couple of hours on steep narrow mountain paths, crossing swaying suspension bridges high above the roaring Dudh Kosi, and then would take tea at a lodge, before moving on again.

On the long haul up to Namche Bazaar we turned a corner and caught our first glimpse of Mount Everest with a three mile plume of snow generated by the jet stream. At 29,035 feet (8,850m) tall every child learns that this is the highest mountain in the world. It has been formed by the up thrusting of land as two continental plates collide, and is continuing to grow in height. It is named in honour of the first Surveyor General of India and was first climbed in the pre-monsoon season by Edmund Hilary and Norgay Tenzing on May 29th 1953.



Basecamp

After ten days trekking we arrived in Basecamp (5,300m). This bleak and desolate place is on the Khumbu Glacier and was to be our home for the next three months. Our sherpas had cleared a large area for our camp. There were 2 cook tents, a mess tent, a medical tent, 3 experimental tents, a maintenance tent, a communication tent, toilet tents, shower tents and everyone had their own personal tent. Initially the food seemed good, but over time and with limited access to fresh food it became increasingly dull. Appetite suppression and weight loss are recognized phenomena and I managed to drop from 80kg to 66kg during the expedition.

The Icefall dominates Basecamp like no other glacier I know. Basecamp is actually sited on the glacier just as it takes a right angled bend and is on the move in two ways all the time. Firstly it is melting fast and everyday new rivulets develop as the glacier melts in the hot sun. Rocks and tents are left high and dry as the surrounding ice melts giving the impression of the tide going out. Secondly the entire camp is slowly on the move down the valley, and every so often there are pistol shot noises as the ice readjusts its position.

Khumbu Icefall and Western Cwm: The route climbs rapidly through some of the most sensational ice landscape in the world. It tackles the vertical seracs and the gaping crevasses head on, using a combination of fixed ropes and aluminium ladder bridges (using up to 4 tied together). In some ways the route is a sociable place as one meets friends and climbers from other expeditions, but speed is the essence for safety, since it reduces the time spent in this exquisitely beautiful but hostile and potentially dangerous environment. Our strategy was to



Professor Chris Imray PhD FRCS FRCP
UHCW NHS Trust, Coventry and Warwick Medical School

acclimatise elsewhere on safer ground, so that we could move through the icefall more quickly.

Lhotse Face

'Coffee, tea or French onion soup?' was the question Sundeep asked me, as we settled into Camp 3, perched halfway up the Lhotse Face at about 7,100m. The Face is a 1,500m (4,500ft) ice and snow slope angled at between 40-50 degrees. Our campsite (!) was a narrow strip of horizontal space and had been carved out of the steep ice and snow slope by our sherpas. On the one side blocks have been cut out of the slope, and on the other the blocks have been used to build up a ramp to give a six foot wide horizontal terrace to place our tent.

South Col

On first arrival, the South Col had a deceptively benign appearance. In the sun and without any wind, it was warm enough for T shirts. It was only later when the sun set and the wind picked up that we began to appreciate the true harshness of the place. Temperatures plummeted to as low as -35C, and with oxygen levels 1/3 of those found at sea level, we began to appreciate what was meant by the term the 'death zone'. At this altitude, the body is deteriorating all the time, and life is unsustainable for any length of time. Without oxygen even the simplest of tasks such as brushing ones teeth took on gargantuan proportions, requiring a rest to complete the task.

Most teams arrive at the South Col in the early afternoon, they then spend a few hours rehydrating and sleeping before setting off on their summit attempt somewhere between 9.00pm and midnight. Our plan was different; we had the most ambitious range of scientific experiments ever undertaken at this altitude to undertake in the world's highest 'laboratory' on the South Col (8000m). We spent a day setting up



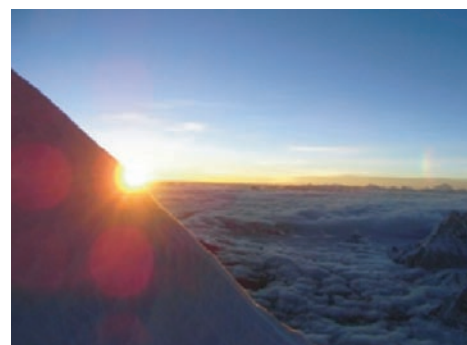
equipment, followed by two days of experiments ranging from cerebral perfusion studies to maximal bicycle exercise tests. At rest and off supplemental oxygen our blood oxygen saturations were between 48-56%, (normally 99%) and with exercise these levels dropped further, understandably our bodies were deteriorating continuously. In total, we spent 5 nights on the South Col- we believe this is the longest anyone has ever spent there.

The results so far

One of the questions asked is 'Have we learnt any lessons for critically ill patients?' Although much data is still in the process of being analyzed there are some interesting and potentially important messages emerging from the preliminary data.^{1,2,3} Perhaps the most notable being expedition leader Mike Grocott's paper in the NEJM on arterial blood gases and oxygen content in climbers on Mount Everest. It demonstrated that individuals appear to be able to function reasonable normally (!) with exceptionally low arterial blood oxygen levels. Four of us underwent femoral arterial stabs at 8,400m, and a sherpa 'ran' these down to Camp 2 at 6,400m for analysis. This descent took us two days, but Pasang managed it in two hours -with time for tea at the South Col! "In four samples taken at 8400 m (27,559 ft)-at which altitude the barometric pressure was 272 mm Hg (36.3 kPa)-the mean PaO₂ in subjects breathing ambient air was 24.6 mm Hg (3.28 kPa), with a range of 19.1 to 29.5 mm Hg (2.55 to 3.93 kPa). The mean PaCO₂ was 13.3 mm Hg (1.77 kPa), with a range of 10.3 to 15.7 mm Hg (1.37 to 2.09 kPa)."¹

Conclusions

The mountain was climbed, everyone returned home safely, and great friendships were forged. Judged by conventional criteria Mike Grocott has led one of the most successful Everest expeditions ever. On the research side, tantalizing initial insights into the pathophysiology of hypoxic 'healthy' individuals and the critically ill are beginning to emerge. However, perhaps the most remarkable aspect



of the expedition were the incredible sherpas. With enormous good grace and humour they performed amazing physical feats often in a very dangerous environment under extreme hypoxia. Surely their genetic and physiological adaptation offers the most obvious line of research in trying to understand to the response of humans to extreme hypoxia?

Acknowledgements

The expedition was supported by Mr. John Caudwell, BOC Medical (now part of Linde Gas Therapeutics), Eli Lilly, the London Clinic, Smiths Medical, Deltex Medical, and the Rolex Foundation, the Association of Anaesthetists of Great Britain and Ireland, the United Kingdom Intensive Care Foundation, and the Sir Halley Stewart Trust. Caudwell Xtreme Everest is a research project coordinated by the Centre for Altitude, Space, and Extreme Environment Medicine, University College London. Membership, roles, and responsibilities of the Caudwell Xtreme Everest Research Group can be found at: www.caudwell-xtreme-everest.co.uk/team.

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Coronary artery grafting in high **RISK** patients randomised to off-**P**ump or on-pump surgery

MRC REC reference number: 08/MRE00/58

ISRCTN: 29161170

Reference number: G0700469/81685

UKCRN Portfolio number: 4333

Professor David Taggart and Professor Gianni Angelini and colleagues from Oxford and Bristol, are carrying out a large scale international multi-centre randomised controlled trial comparing on-pump and off-pump CABG in high risk patients.

If you are interested in participating in this MRC funded UKCRN portfolio trial, please either send back the tear-off slip or email Bristol CTEU. Further details are given overleaf.



crisp-trial@bristol.ac.uk

Tel: 44 (0)117 342 2987



Why is this trial important? Evidence from RCTs in *low-risk populations* suggests that off-pump CABG is as safe as on-pump CABG in terms of mortality and that it reduces several aspects of morbidity, but it may increase the need for re-intervention. However, the evidence in *high-risk populations* is weak; the CRISP trial will test the hypothesis that off-pump CABG reduces mortality and morbidity in high-risk patients without a higher risk of re-intervention, compared to on-pump CABG.

What are the key outcomes? Composite end-point of in-hospital mortality and major morbidity (renal failure, myocardial infarction, prolonged ventilation, stroke); quality of life and need for subsequent re-intervention at 30 days and 1 year; costs (duration of hospital stay, intensive care stay and hospital costs).

Patient inclusion criteria? High risk patients with an additive EuroSCORE of 5 or more, having isolated CABG.

What is the study size? The trial will aim to recruit 5400 patients across 40 centres.

How will centres be reimbursed? Centres will be reimbursed £200 for each patient who completes the trial.

Which centres eligible to participate? Randomisation will be expertise-based, so participating centres must have at least one experienced on-pump surgeon and one experienced off-pump surgeon who have each carried out at least 100 CABG operations using their preferred method.

✂

The CRISP Trial

Name of Centre/Surgeon/s interested in participating



Send reply slip to: The CRISP Trial, Bristol CTEU, Level 7,
Queens Building, Bristol Royal Infirmary, Bristol BS2 8HW
Tel: + 44 (0) 117 3422987; Fax + 44 (0) 117 3423288

The Patient's View

*David Geldard MBE,
SCTS Patient
Representative*

The New Year started at a fast pace for cardiovascular patients. The second ever parliamentary lobby for cardiac rehabilitation, sponsored by the British Heart Foundation, was held at Westminster on Wednesday 3rd of February.

There was a good turn out of patients and carers as well as allied medical professionals. I met with my local MP and the research assistant of another, pressing home the fact that acceptable localised cardiac rehabilitation was very much a matter of luck than cross country commitment. They were not at all comfortable with the realisation that participation in rehab by their local constituents patients was very much a post-code lottery. It is also interesting to note that poor cardiac rehabilitation services were the first aspect of CVD that inspired BHF to get political; their second campaign was through the sponsorship of the Cardio and Vascular Coalition, CVC, which works to highlight the need for a comprehensive Cardiovascular Health Strategy for 2010 – 2020.

For the second year, our SCTS Annual Meeting held a Patients' Forum, which was

instigated last year by Simon Kendal and strongly supported by Leslie Hamilton and the rest of your Executive Committee. We drew in twenty-four patients and carers from the Merseyside and Cheshire, Lancashire and Cumbria, West Yorkshire, Greater Manchester and Cheshire, and the Black Country Cardiac Networks. We approached the geographically related cancer networks and despite their assurances of support and cooperation and our best efforts, no thoracic patients were nominated by them. We did however receive active cooperation from the Roy Castle Lung Foundation, based in Liverpool, who recruited a dynamic and articulate female patient, Anne Long, who had undergone radical lung surgery at Liverpool many years ago. Anne ably represented the interests of thoracic patients through her dynamic approach. The patients were utterly impressed to be addressed by Moira



Buchanan, President of the Royal College of Nurses who gave a stirring presentation, and then in another session to receive a surprise visit from Sir Bruce Keogh, Medical Director for the NHS, was further proof that SCTS are serious about their wish to promote active patient and carer involvement, Sir Bruce listened with attention to the observations of our representatives and offered appropriate words of support and action.

Tara Bartley's initiatives in arranging presentations of mutual interest to patients and nursing colleagues was very successful, although one of our representatives was overcome by a presentation from Maura Screaton from Cambridge, on psychological distress in patients in longer term intensive care – a mark of the significance of the topic and not a reflection on having patients present. All in all, our patients marked us highly for the quality, relevance, the welcome they had received, and the overall management

The Ionescu Scholarship

In 2005 Marian Ionescu and his wife Christina bequeathed a sum of money to the Society of Cardiothoracic Surgeons of GB and Ireland for an annual scholarship for new consultant surgeons to attend centres of excellence to learn new techniques.

In 2009, due to a lack of suitable applicants, the scholarship was not awarded and it was decided that the 2010 scholarship would be open to more experienced consultants. As I have been a consultant since 1998, I would not have been in a position to apply for the scholarship and I was therefore very excited by the opportunity to apply this time. Established consultants are probably in a better and stronger position to start a new programme of a newly learnt procedure than a recent appointee. They have overcome the inevitable learning curve of being a consultant, their practice has matured with established reproducible outcomes and they are familiar with the clinical governance procedures and logistics of introducing a new programme in their hospitals.

Without opportunities like this for established consultants (of which regrettably there are very few), and with busy clinical schedules it is not surprising that most consultants stick to procedures and techniques that they learnt as trainees 5-25 years previously. As surgeon politicians, Lord Ara Darzi and Sir Bruce Keogh in recent years and months have often pointed out the need for surgeons to innovate so as

to improve outcomes and patient experiences and to cut the cost of morbidity associated with surgical procedures.

I have always been interested in lesser invasive surgery. Morbidity and the relative high cost of cardiac surgery results from methods established more than 40 years ago, but are required to achieve a good anatomical and functional result. One of these methods is the median sternotomy incision and as cardiac surgeons who know no other we often forget the morbidity associated with this incision. Excellent access has trumped all else. When I was a houseman in Sheffield, I remember a general surgeon saying how he envied cardiac surgeons and their median sternotomy – 'it must be like working in a cathedral'.

In the US and in Europe, the percentage of isolated valve operations carried out through lesser invasive incisions is now between 15 and 20. I suspect that in the UK that figure is much smaller. In the UK, consultant cardiac surgeons are a conservative lot for reasons outlined above. Scrutiny of results and outcomes has probably not helped.

Although not strong, there is anecdotal evidence of improved recovery times and patient experience associated with these techniques. There is also however some concern on safety after adverse experience in 2 cardiac surgical centres in England.

arrangements of their Forum, and they made very appreciative comments about their day with SCTS.

Further news on the Department of Health's Strategic Commissioning Development Unit's work to prepare a commissioning pack for Cardiac Rehabilitation is that a Preview Event was held in London in May, with Professor Roger Boyle, National Director for Heart Disease and Stroke, as a keynote speaker. There is now to be a flurry of consultations to tidy up the final proposals and Report for publication later in the year. Always remember in the current economic climate, that good cardiac rehabilitation improves mortality and morbidity and so there are significant savings to be made by having robust and comprehensive programmes in place all across the land. Looking at the biographies of the members of this commissioning team, it was surprising to note that I was the sole representative of the surgical fraternity.

A Conference to celebrate the Tenth Anniversary of the National Service Framework for Heart Disease was held in London in March. It was good to see the Triumvirate of Sir Bruce Keogh, Professor Roger Boyle and Dr Mark Dancy, who have all done so much to lead from the front throughout the decade, looking so well and

sprightly and not much different to how they looked all those ten years ago. It was good for me to be invited, and SCTS were well represented by Steven Livesey, Tara Bartley and others.

Professor Marjan Jahingiri and I have served together on committees for NICE and SCTS, but it was still a surprise to be pressed to talk to Marjan's team at St George's on Cardiac Rehabilitation. It was an equal surprise that Marjan has these regular team meetings at 8.00am on a Tuesday morning. Her team comprises surgeons, cardiologists, anaesthetists, nurses and other health professionals. They all turned out, some in their best bedside manner clothes, and some in their greens. In preparation I checked out St George's on the Public Portal for Cardiac Surgery, on the MINAP Registry, on the National Audit for Cardiac Rehabilitation and on the SCTS Blue Book. As I revealed to them what I had found, it was a relief to discover that a key member of the team, the Audit Manager, was also present, as were other key support workers. The important thing I learned from my visit was the absolute significance of having a dynamic whole team approach to our service, and that here was an example of best practice in action. What they made of me I'm not at all sure, but they were particularly attentive when I touched on

sexual activity and heart patients. So, well done Marjan and your team, Onwards and Upwards!

Our thoughts are already turning to next year's Annual Meeting in London, and to continue with our commitment to involve patients and to hold a Patients' Forum. We are equally committed to recruiting more representation from our thoracic patients than we have hitherto managed. If any of you have any ideas as to how this might be better achieved or if you know of any likely candidates please let us know, and please feel free to approach these patients yourselves.

When I became your Patient Representative, two years ago in September, following a searching interview with Graham Cooper, I was most impressed with the warmth of the reception I received from your President, Leslie Hamilton, and the strength of the support that started to emanate from the Executive Committee and others. Now Professor David Taggart is at the helm and this commitment to patient participation and involvement shows no sign of abating. SCTS is pioneering and leading from the front in these matters, as in others. Thanks so much for all for this support, you will now have a measure of what can be achieved, let's keep working together to make it better.

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Honorary Senior Lecturer University of Sheffield*



I hope to use the scholarship to attend a laparoscopy course organised by the college of surgeons in England, and to spend 2 weeks in each of three centres in Europe where large numbers of minimally (lesser) invasive heart valve surgery are carried out. These centres are the Onze Lieve Vrouweziekenhuis in Aalst Belgium, Hopital Cardiothoracique Louis Pradel in Lyon and one other in Italy. Varied practice of consultant cardiac surgeons in the UK dictates that very few surgeons have sufficient numbers of patients requiring isolated heart valve procedures. I plan to overcome this by making these procedures, 2 consultant procedures – patients could be pooled and 2 experienced heads at the table do tend to be better than one. These patients, as do all patients who have undergone heart valve surgery in Sheffield, will attend a special valve clinic 4-6 months after surgery. They will have clinical symptoms and signs recorded by dedicated staff, they will undergo a full echocardiographic examination and they will take a dedicated follow-up survey (initial one being done in the preop period) as part of a PROMS exercise in patients undergoing heart valve surgery. In this way, we can contribute to the hitherto lean body of knowledge on these methods.

If as hoped a successful programme is established in Sheffield, we can turn our attention to the dissemination of knowledge and experience through training. The aim of any training programme is to try and eliminate the learning curve. Although we all have heard about the fantastic achievements of Hugo Vanermen in Alst, very little is known about the inevitable pain of his learning curve. The desire to avoid it is undoubtedly another reason for surgical conservatism. I have been very impressed with the arrangements for training in laparoscopic colorectal surgery in the UK. NICE have recommended laparoscopic resection by a suitably experienced surgeon as the preferred treatment of colorectal cancer. NHS cancer money has therefore been used to establish a comprehensive training programme (www.lapco.nhs.uk). It is as far as I can tell the first of its kind anywhere in the world and if successful should serve as the perfect role model for the teaching and dissemination of surgical techniques.

I would like to thank the Society for the award of the Scholarship and the opportunity this provides.

Does Blood Transfusion harm Cardiac Surgery patients?

The Titre 2 Study

Is red cell transfusion an important issue in day-to-day cardiac surgery?

It is difficult to imagine undertaking complex cardiac surgery without the ready availability of a safe supply of donor blood. Even routine cardiac surgery can require red blood cell transfusion for the management of severe blood loss or critical anaemia where it undoubtedly improves outcome. The fact that blood is almost always available when required, that it is a life saving treatment in some circumstances, and that it is often assumed to be safe contribute to its widespread use. Recent surveys suggest that up to 95% of patients in some centres receive a blood transfusion. This is not universal practice, and some centres transfuse only 45% of patients. This variation in transfusion rates cannot be accounted for by differences in case mix alone and appear to reflect institutional preferences for liberal transfusion in some units with more restrictive practice in others. The clinical significance (as opposed to the purely economic implications) of this variability becomes important only if RBC transfusion is harmful.

Is there evidence that RBC transfusion may be harmful to cardiac surgery patients?

Over 40 large observational studies have considered the relationship between transfusion and outcomes in cardiac surgery. All have reported significant associations between transfusion and adverse outcomes including death, infection, acute kidney injury, stroke and myocardial complications. These studies by their nature cannot show causality however the consistency of their findings across different countries and different patient populations, coupled with the strength of the associations, at least a threefold increase in most studies, argue against these findings occurring simply due to confounding or bias. There is sound experimental evidence to support the assertion that transfusion is harmful; RBC transfusion in rodents as well as larger mammals has been shown to cause a paradoxical increase in tissue hypoxia and

organ injury, an effect that has been attributed to the physiochemical changes that occur in RBC during storage. No randomised study to date has sought to establish whether transfusion causes harm in cardiac surgery however.

Is RBC transfusion harmful to non-cardiac surgery patients?

The hypothesis that RBC transfusion is harmful is not supported by randomised trials in non-cardiac surgery patients. To date three high quality randomised trials have compared outcomes in patients randomised to liberal or more transfusion versus restrictive or less transfusion. The FOCUS study, in patients with fractured neck of femur and the TRIPICU study in paediatric ICU patients demonstrated no effect of liberal transfusion practice on ischaemic or infectious outcomes or on multiple organ dysfunction respectively. Similarly, the TRICC study, in adult ICU patients showed only a borderline effect of liberal transfusion on its primary outcome, thirty day mortality (95 percent confidence interval for the difference between the groups, -0.84 percent to 10.2 percent; $P=0.11$). There were however differences in secondary endpoints, with a significantly higher incidence of myocardial infarction and pulmonary oedema in liberally transfused patients. There was also a higher mortality in younger patients and those with less comorbidity randomised to more liberal transfusion.

Why do we need to do a study in cardiac surgery?

The wide variability in transfusion practice, with almost 95% of patients receiving transfusion in some cross sectional studies, the body of observational evidence suggesting that transfusion may be harmful in cardiac surgery and the variable results of RCTs in non-cardiac surgery patients reflects a state of clinical equipoise where we simply do not know if



transfusion is harmful or not. If it is harmful we have a duty to our patients to restrict transfusion. Equally, if it is not harmful we need to define patients where it is clearly beneficial. This is reinforced by the ongoing drive for quality and improved outcomes. There are additional economic considerations that influence transfusion

practice. As the general patient population gets older the demand on blood will increase, as will cost, and the development of restrictive transfusion practice will become increasingly important in the next decade.

The TITRE 2 Study

The TITRE 2 study is a NIHR funded, UK, multi-centre randomised trial in adult cardiac surgery patients. The primary aim of the study is to determine whether a group randomised to a more liberal transfusion threshold (a Hb of 9g/dL or a haematocrit of 27) has a different outcome than a group randomised to more restrictive transfusion threshold (a Hb of 7.5g/dL or a haematocrit of 22). These thresholds were selected as they represent the range within which over 60% of all transfusions are administered in day to day practice. The study will enrol over 2000 patients and is powered to detect a significant difference in the co-primary outcome: any infectious or ischaemic complication within 30 days. The study will also undertake a formal cost-effectiveness analysis of the two interventions as well as considering other important factors that may influence the relationship between transfusion and outcome such as age of stored blood and the patients risk profile and comorbidity.

Recruitment

Enrolment has commenced in 5 centres as of November 2009 with a further 5 expected to commence enrolment within 3 months.

Gavin Murphy

Walport Consultant Senior Lecturer, Bristol Heart Institute, Bristol Royal Infirmary

TITRE 2 Sites

- Aberdeen (Aberdeen Royal Infirmary)
- Basildon (Essex Cardiothoracic Centre, Basildon and Thurrock Trust);
- Blackpool (Lancashire Cardiac Centre, Blackpool Fylde & Wyre Hospitals NHS Foundation Trust)
- Bristol (Bristol Royal Infirmary, University Hospitals Bristol NHS Foundation Trust)
- Edinburgh (Royal Infirmary of Edinburgh, NHS Lothian)
- Leeds (Leeds General Infirmary, Leeds Teaching Hospitals NHS Trust)
- Leicester (Glenfield Hospital, University

Hospitals of Leicester NHS Trust)

- Liverpool (Liverpool Heart and Chest Hospital NHS Trust)
- Southampton (Southampton General Hospital, Southampton University Hospitals NHS Trust)
- Wolverhampton (New Cross Hospital, Royal Wolverhampton Hospitals NHS Trust)

Enrolment of new centres is ongoing. Centres receive remuneration of a fee per patient basis. As the study is funded by the NIHR Health Technology Assessment Authority it is considered as a portfolio

study which therefore entitles contributing centres to local research network support, usually in the form of a research nurse or nurses. Enrolment will last two years. Any unit that may wish to take part should use the contact details at the bottom of this page.

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Trainees Newsletter

Betsy Evans

As my first contribution to the Bulletin I should like to start by thanking you for electing me as your Trainee representative and also for Sunil Bhudia our outgoing representative for all his hard work.

The trainees' day in Liverpool this March was a well attended event and feedback regarding the forum-style approach from you as a group was favourable. I believe that most people felt that they were able to voice their concerns regarding training issues and utilise the panel of experts present to gain advice on specific topics. The trainees' day has been made compulsory for all national trainees for a reason - it is the only day in the year when we can meet as a group and get a feel for how training within our specialty is across the United Kingdom and Ireland. The topics covered in the trainees meeting were wide ranging. Issues discussed included the national selection process, competency-based training, ISCP and the European Working Time Directive (EWTd).

A presentation on the national selection process was well received by the junior members of the society. Further discussion was had on how assessment of competency would affect progress through the national training programme for trainees with previous experience at registrar level. Debate on the ISCP format and structures for recording training took

place. The emphasis on each trainee to form educational contracts and initiate competency records with clinical trainers and assigned educational supervisors (AES) within their trusts was brought up by the newly elected dean, Mr Sion Barnard. He stressed the importance of trainees utilizing this framework of AESs together with Training Programme Directors and ultimately himself, as the Cardiothoracic Dean to ensure that issues regarding the level of training offered to an individual are dealt with satisfactorily. Also, the assessment of deaneries by PMETB will be an important tool to ensure that all training programmes achieve a minimal level of training which will subsequently determine future allocation of training posts in the UK and Ireland.

As ever a great deal of the meeting's discussion was spent on the issue of the EWTd and the detrimental impact this has on the training of cardiothoracic surgeons. As I am sure all of you are aware the President of the Royal College of Surgeons in England, John Black, has been fighting "our cause" regarding the disruptive effect of EWTd. In the May issue of the RCS Bulletin he suggests that there will be progress on this matter with the emphasis being on junior doctors' contracts based on training not on hours worked. There are possibilities that the newly elected government will listen to the surgical plea, David Cameron and Nick Clegg have

published a full coalition agreement, covering 31 policy areas. It promises to limit the application of the Working Time Directive in the UK. Mr Black's response to this was encouraging he reiterated that: "We have been saying for many months now that the directive cannot, and is not, working for surgery. Not only is patient safety being adversely affected, constraints on doctors' hours mean that trainee surgeons are not gaining the necessary training they require. The college looks forward to working with the new government to find a permanent solution to this problem, which we believe is an opt-out for those working across all surgical specialties".

The trainees' day at the annual meeting this year was further enhanced by the inaugural SCTS University. Feedback from various trainees, whom attended the university, felt that it offered excellent teaching opportunities with work-shop style interactive sessions being strongly supported. Cardiothoracic surgery is an exciting career to be in and we must continue to spread the word to future surgeons. I look forward to having communications with trainees and would encourage people to get in touch with me so that any concerns can be voiced at the various meetings that I attend as your representative!

Here's how you could single-handedly reduce surgical site infections by

41%



A new study published in *The New England Journal of Medicine* proves that ChloraPrep provides greater protection against SSIs than povidone iodine¹



According to the study, ChloraPrep (2% Chlorhexidine Gluconate & 70% Isopropyl Alcohol):

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- reduced superficial infections by 52% and deep incisional infections by 67%

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or visit: www.chloraprep.co.uk

Reference: 1. Darouiche RO et al. *N Engl J Med* 2010; 362: 18-26

CHL102 January 2010

PulMiCC

Tom Treasure, Ian Hunt, Belinda Lees

PulMiCC (Pulmonary Metastectomy in Colorectal Cancer) is a randomised trial comparing active monitoring with active monitoring plus pulmonary metastasectomy. It was launched at the Cardiothoracic Institute on 27th March 2010. This RCT is funded by Cancer Research UK and had jumped through all the hoops now required of a clinical trial. The research question is whether surgical pulmonary metastasectomy improves survival for patients with colorectal cancer, metastasised to the lungs.

The uncertainty about the benefit of this surgery was first put to the Society in a Tudor Edwards Lecture in Manchester on 12th March 2007¹ and to the wider world in the BMJ in April 2007². The proposal for a trial was taken by the National Cancer Research Institute (NCRI) groups for advanced colorectal and for lung and with their support was submitted to Clinical Trials Awards and Advisory Committee (CTAAC) and on through CRUK and the research ethics process and R&D. When we say "jumped through all the hoops" that's exactly what it feels like to mount an RCT. The essential features of the trial were presented to the European Society for Surgical Oncology and appear in its peer reviewed journal³ and can be seen in the European Society of Thoracic Surgeons (ESTS) metastasectomy working groups report in a Journal of Thoracic Oncology supplement devoted to the subject. (Figure).

It is a practice which should be addressed.

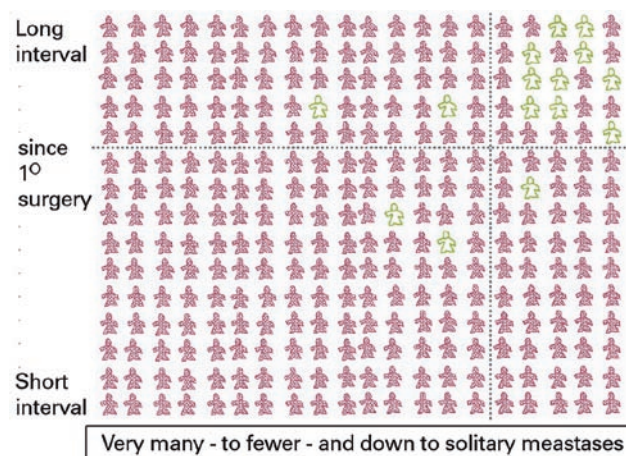


Figure: based on the Cancer Registry data 5% or more five year survivors amongst those categorised as advanced colorectal cancer, that is metastasised. In this graphic they are the 15/300 in green. In clinical practice the basis of selection for metastasectomy is fewer metastases (60% are solitary) and longer interval since the primary resection (36 months on average). Thus both the natural survivors congregate amongst the putative operated patients in the top right corner. In this illustration there are now 10/25 patients, that is 40%. It might all be a matter of selection!

We all know that we are being asked to remove metastases from the lungs for a wide range of cancers and the practice has been growing throughout the developed world to the point where it has been accepted as a proven standard of care. But there is uncertainty about whether the longer survival amongst patients undergoing pulmonary metastasectomy is a product of surgery or of selection. The facts are that only a few percent of patients with advanced colorectal cancer are put forward for this surgery and the factors considered in their selection are exactly those that are prognostically favourable in unoperated patients. From cancer registry data we know that 5-10% of patients are natural survivors and we hypothesise that most of these natural survivors will remain within the shrinking denominator as those unlikely to survive long are excluded from consideration. (Figure). We have tested this hypothesis with mathematical modelling from Thames Cancer Registry data and a population derived to be comparable on two factors (the interval between the primary surgery and the metastasectomy and the original Dukes cancer stage) had a not dissimilar survival at five years compared with large American and Japanese clinical series.⁴

Prior to embarking on any piece of research it is best to do a systematic review of what is already known. From a systematic review of 51 case series comprising 3,500 patients we know that the type of patients we select and how they fare has changed hardly at all since the 1960s: they are 60% male of an average age of 60, 60% of whom have a single metastasis and 60% are dead of their cancer within the five years which is the usual time interval for reporting.⁵ The only notable change is that since liver metastasectomy gather momentum in the 1990s we are seeing an increasing number of patients who have already had hepatectomy or are presented as candidates for both operations. However no randomised trials have been done but nor is there any attempt to draw a direct comparison, just an implicit assumption that five year



survival is nil, an assumption challenged by Torkel Aberg 30 years ago.⁶ That challenge, based on clinical case analysis, has until now has been largely ignored; his work was cited by only two of the papers in our systematic review.

And so it's time for a trial. The case has been systematically built over the last three years since the Tudor Edwards Lecture. There has been excellent support from British thoracic surgeons but the challenge will be to convert this enthusiasm into randomisations. For any further information contact Belinda Lees at the Royal Brompton Hospital CTEU or Tom Treasure.

Tom Treasure tom.treasure@gmail.com
Belinda Lees B.Lees@rbht.nhs.uk

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Sub-specialisation

of thoracic aortic surgery within centres in the United Kingdom

Thoracic aortic surgery in the UK, both elective and emergency work, has traditionally been low volume and performed by most surgeons in most centres on an ad hoc occasional basis.

While our national results for elective root surgery are comparable with international outcomes, UK results for surgery on the descending thoracic aorta, thoracoabdominal aorta and Type A aortic dissection have been less than ideal (SCTS bluebook 2003 and 2009). Evidence is accumulating that specialisation in aortic surgery improves outcome, particularly subspecialisation of centres rather than necessarily surgeons, suggesting it is the “system” which improves results. With vascular surgeons and interventional radiologist offering endovascular and hybrid solutions for complex thoracic aortic disease, it is incumbent on us to improve and publish outcomes for open surgery as well as involve ourselves in endovascular work. Indeed it is important for us as a specialty to defend this area of our practice. We have been given the ammunition to claim and defend this area by the National Institute for Clinical Excellence (NICE). In guidance on treating TAAA with stents they have stipulated that all patients with thoracic aortic aneurysmal disease should be discussed at a specialised multidisciplinary team

meeting. By having a mandatory cardiac surgeon present in discussions with vascular surgeons and interventional radiologists objectivity should be ensured. The same guidelines suggest that all TEVAR should be performed in centres with facilities for conversion and cardiopulmonary bypass if required. We believe these are the tools which Professor David Taggart has long campaigned for in defending coronary surgery. The process of dividing up centres and regions to do this work is complex and was the subject of a session at the Liverpool SCTS Meeting 2010. Liverpool has started the process of subspecialising this service at a Consultant level and the process is described in this article in the spirit of sharing experience.

Current national outcomes in the UK

Information from Sixth Blue book (SCTS 2008) suggests the UK has an elective mortality for root replacement of 8% while root repair with valve preservation is around 1%. Overall mortality for acute Type A dissection repair is 22.8%. Unlike the Blue book from 2003, the most recent update groups all “interposition tube grafts” together making it difficult to separate intervention on the ascending and descending aorta. However the 2003 Blue book suggest open intervention on

the descending thoracic aorta has a mortality of 9.1% (total cases 66) excluding trauma and on the thoracoabdominal aorta of 29.2% (total cases 24). Intervention in the United Kingdom as a whole is difficult to determine with the Vascular Society, British Society of Interventional Radiologists and commercial companies holding their own registries. What is certain is that we are in a battle to defend open intervention on the thoracic aorta and as specialty with the most history in this area, we should insist on the MDT process and position ourselves at the centre of that process, moderating intervention whatever it might be: open, endovascular or hybrid options.

The Liverpool Thoracic Aortic Aneurysm Service

Aortic surgery has been sub-specialised in Liverpool since May 2007. Currently there are three cardiac surgeons, two of which were employed specifically to lead in aortic surgery, who do almost all elective and on-call aortic activity. The appointments are an indication of the commitment of the Trust to support this service both in facilities and in financially underwriting what is an expensive subspecialty. The Trust Board see this work as important service development increasing the national and international profile of the hospital.

The UK TAVI Registry

This forms part of a more general UK TAVI evaluation programme, under the auspices of the UK TAVI Steering Committee (see below). This has been a collaborative process between the SCTS and BCIS in conjunction with; the Heart Team from the DoH, NICE, the MHRA and the Specialist Commissioners.

This programme consists of 3 main strands; Risk Model Generation, the UK TAVI Registry and proposals for a UK RCT. The risk modeling group consisting Prof Nick Freemantle and his team, Dominic Pagano and Ben Bridgewater has completed

sophisticated statistical modelling based on data from over 50,000 valve operations. The model has been validated against the 08/09 dataset. The model will also be applied to the UK TAVI Registry database in due course.

A detailed proposal for a RCT (UK-TAVI) has been submitted to the final stage of the HTA process. Briefly, this described a RCT of AVR vs TAVI. This is a pragmatic trial of any technology and any access with open inclusion criteria - recruitment based on the concept of an MDT deciding that either technique would be appropriate in any individual patient. This trial is a completely different trial to

Mark L Field, Manoj Kuduvalli, Michael Desmond and Aung Oo
Liverpool Heart and Chest Hospital

The Thoracic Aortic Aneurysm MDT

The MDT process is central to all our activity, legitimises our management and avoids “turf wars” with our allied specialties. The MDT occurs monthly and is coordinated by a nurse “Aneurysm Coordinator”. The meeting is attended by Cardiac Surgeons, Vascular Surgeons, Interventional Radiologist and Anaesthetist/Intensivists with a sub-speciality interest. Patients are presented from all interventionalists – typically arch and descending thoracic aortic pathologies. Routine root surgery is managed outside this arena by cardiac surgeons in separate informal MDT process. Discussion is typically robust and there is no specific agenda towards any particular form of intervention. The patients comorbidities and aortic pathology dictate the form of intervention whether that be open surgery, endovascular or a hybrid approach.

Out-patient Clinics

All new referrals are collated by the Aneurysm Coordinator and discussed with the surgeons on an informal basis once per week. This allows triage of patients and coordination of any investigations required before attending clinic. Patients, both new and follow-up are reviewed in a weekly Thoracic Aortic Aneurysm. No patients are discharged and follow-up of post operative patients is for life. Patients denied intervention are also followed up regularly. We have a monthly Marfans and Connective Tissue Disorder Clinic.

Theatre Sessions

Each surgeon is allocated 2 all day theatre sessions per week, one of which is for routine cardiac activity and one for aortic surgery. Complex descending thoracic aortic aneurysms are performed on one of the three days and typically attended by two or three of the consultant surgeons.

On-call

A one in three on-call is run on a weekly rolling rota. In addition, each surgeon has a commitment to a general cardiac on call of one in twelve. Referrals are taken regionally and nationally. Complex disease is discussed with an “ad hoc MDT”. Referrals are typically Type A dissection requiring immediate surgery or aneurysmal disease requiring surgery or surveillance. Type B dissections are typically accepted for surveillance in the Critical Care Area with invasive monitoring and intervention when required.

Facilities

Key to provision of these services is a large critical care area which number over 40 beds. This allows for on-going routine cardiac activity despite the presence of a number of long stay patients typical for thoracoabdominal aortic aneurysm surgery. We have three Anaesthetists with a sub-specialty interest in aortic surgery, two of whom participate in the weekly intensive care rolling rota. In addition, the availability of eight theatres including a purpose built hybrid theatre allows for endovascular and hybrid interventions.

Activity

Currently the centre performs around 140-150 aortic cases per year with around 15 being open thoracoabdominal aortic surgery. In addition, we perform a number of TEVAR procedures including hybrid procedures. Two of the three aortic surgeons also run the TAVI programme for which the hybrid theatre is eminently suited. While we as cardiac surgeons have led with ascending, arch and Crawford Extent I-III, our Vascular colleagues have led with Extent IV and endovascular intervention including branched stent grafts for selected Extent II. This division is not exclusive.

Conclusion

Obtaining satisfactory results in thoracic aortic surgery required subspecialisation. Vascular Surgeons and Interventional Radiologists are increasingly active in this area and recent AHA guidelines on Thoracic Aortic Disease, we believe have a disproportionate bias towards endovascular intervention. We have been given the mandate to lead this work by pre-existing NICE guidelines on intervention in thoracic aortic disease and it is incumbent on our specialty to sub specialise, improve and publish results and insist on MDT discussion and intervention take place within cardiac surgery units.

Neil Moat

PARTNER which examined 1st generation devices, single technology, included learning curve, and enrolled a very high risk population (mean LES=28) (compare to UK TAVI Registry – below). A National (UK) TAVI Registry was established. The SCTS and BCIS agreed a dataset to be collected on all patients and submitted to the CCAD. The data were collected prospectively, apart from a small number of early implants where the dataset was completed retrospectively from the patient record. The units submitted their data to CCAD. There is an ongoing process of data cleaning/validation etc. An analysis is being run on all patients having implants performed by 31/12/09. Mortality tracking was

effected through the ONS. An analysis has been carried out on all patients having implants performed by 31/12/09. These data were presented at EuroPCR in May 2010 and the presentations are available on the member-only section of our web-site. The following data are taken from this analysis

Data has been submitted by 25/26 units, including all active units in England and Wales. Cases distributions are shown in table 1 overleaf.

continued on page 35



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The UK TAVI Registry continued

Data from 872 patients was submitted to CCAD. Baseline demographics and risk factors are shown in Table 1. The number of cases registered per year increased from 67 in 2007, to 272 in 2008 and 533 in 2009. There were similar numbers of CoreValve and Sapien implants (460 vs 402). Over half of the Sapien implants were transapical (220/402) in contrast to 90% of CoreValve implants (417/460) being via the TF route. 44% of patients had significant CAD affecting 1 or more vessels and 26% of patients had a prior CABG. The proportion of patients with a prior CABG increased from 16.4% in 2007 to 29.9% in 2009. Only 7% of patients had a LV ejection fraction of $\leq 30\%$. The clinical outcomes are encouraging with a 30 day survival of 93.1% and a 1 year survival of 80.3%.

The UK TAVI Registry is a unique database that has captured all, consecutive, TAVI's within a defined population. The tranche of patients reported here provides the first results from this Registry encompassing both the Medtronic CoreValve and the Edwards SAPIENTM valve and reflects a real world experience including the learning curve off all the participating centres. The UK Registry is, we believe, the largest generic TAVI Registry of this type in the world. Further more detailed analyses are underway. Many thanks to all of those clinicians, co-ordinators and data managers from the contributing units and to all the collaborating parties in the National TAVI program.

Table 2: Current TAVI activity – from UK Registry as of 22/1/10

Royal Brompton Hospital	128
St Thomas Hospital	109
Glenfield Hospital	85
King's College Hospital	71
Royal Sussex County Hospital	60
St George's Hospital	44
Wythenshawe Hospital	43
Bristol Royal Infirmary	41
Liverpool Heart and Chest Hospital	27
Hammersmith Hospital	27
John Radcliffe Hospital	27
Barts and the London	22
Leeds General Infirmary	22
Papworth Hospital	22
Victoria Hospital Blackpool	22
Freeman Hospital	12
Wolverhampton	12
Southampton General Hospital	11
Univ Hospital of North Staffordshire	10
James Cook University Hospital	9
QE Hospital, Edgbaston	7
Morrison Hospital	5

Table 1: Distribution of Cases

Royal Brompton Hospital	114
St Thomas Hospital	102
Glenfield Hospital	85
King's College Hospital	71
Royal Sussex County Hospital	63
Leeds General Infirmary	48
Wythenshawe Hospital	48
St George's Hospital	44
Bristol Royal Infirmary	43
John Radcliffe Hospital	29
Liverpool Heart and Chest Hospital	27
Hammersmith Hospital	27
Victoria Hospital, Blackpool	24
New Cross Hospital	23
Papworth Hospital	23
Barts and the London	22
Freeman Hospital	12
Southampton General Hospital	11
University Hospital of North Staffs	11
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A Kourliouros

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Society Medal (best thoracic presentation)

Elizabeth Belcher

A prospective randomised trial comparing biogluce and vivostat for the control of Alveolar air leak

Best Cardiothoracic forum presentation

Jacqueline Davis

Releasing Time To Care - The Productive Ward: The impact of the Process at Papworth. Papworth Hospital NHS Foundation Trust

Best Cardiothoracic forum Poster Presentation

Sarah Deacon

Exploring the Impact of Lung Resection for Carcinoma on Health Related Quality of Life. While working at Nottingham University Hospitals NHS Trust, (UK) Now at Glenfields

Runners Up

Jo-Ann Fowles

Development of the (extra corporal membrane oxygenation) ECMO Specialist Nurse at Specialist Centre. Papworth Hospital NHS Foundation Trust

Shirley Kivi

Implementation of Care Bundles for the Insertion of Central Venous Catheters in Cardiac Theatres and Cardiac Intensive Care Unit. Morrision Hospital

McCormack medal winner

Jonathan McGuinness

Student Poster prize winner

Deepak Chandrasekaran

Informed consent for Interventions in Stable Coronary Artery Disease

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President's Address *continued from page 4*

Mention of the St Jude Medical valve reminds me of my first presentation at a national Society – I was the registrar in Belfast and the St Jude medical valve had been introduced there by Hugh O’Kane following a visit to Lillehei’s unit in the States. My paper was accepted by the Irish Cardiac Society and thought that I had anticipated all the questions (as a good registrar should do). I was relieved to get to the end of my presentation and dealt with the questions appropriately. However just before finishing, one of the senior Dublin physicians asked: “who was St Jude?” As an Ulster Presbyterian it was the one thing I did not know about the valve – St Jude is the Patron Saint of Hopeless Cases!

No thoughts on the history of our specialty could miss out the contribution of **John Gibbon** and his development of the heart/lung machine – over 30 years from first having the idea as a medical student. He almost did not become a doctor – he wanted to be poet. However his father was Professor of Surgery and he felt a certain family pressure to follow in the footsteps. Having achieved the first successful open heart procedure using cardiopulmonary bypass (ASD closure) he then carried out the first audit of surgical outcomes – his first patient (a 15 month old child) died and then he had the successful case. Unfortunately the next two patients (5 year old girls) and he was so discouraged he never operated again. An interesting reflection on closure of the audit loop.

The writer of Ecclesiastes said:

*“What has been will be again.
What has been done will be done again.
There is nothing new under the sun.”*

So there is nothing new in history. I thought bypass began in the 1950s. In 1929 Brukhonenko, a Russian physiologist, utilised the first extracorporeal circulation in his dog experiments – he removed the head of a dog, cannulated the carotid artery and internal jugular vein and used a support dog to provide the circulation.

For those of you interested in research, remember that many of the great developments have been as a result of serendipity. In 1902, **Magnus** (a German physiology researcher) was experimenting with a rat heart on a rig. The perfusate reservoir ran dry, gaseous oxygen went directly into the coronary arteries and yet the heart continued to beat. No one should have been surprised then to read in 1959 Sabiston and Blalock’s paper entitled “Maintenance of the Heartbeat by Perfusion of the coronary circulation with gaseous oxygen”.⁸

Next, a good example of lateral thinking. All of you have driven past fields of cows grazing with their heads down. Unlike two young French surgeons, you did not think to yourself that because cows graze with their heads down they must have one way valves in their internal jugular veins - or else their brains would develop venous congestion. These two young surgeons went to the abattoir, removed segments of internal jugular vein and confirmed the presence of a beautiful three cusp valve. Having placed the segments in a storage medium, they then sold them to congenital heart surgeons to use as a right ventricle to pulmonary artery

conduit – the holy grail of congenital heart surgery. So was born the Medtronic “Contegra” conduit.

Some research is more relevant than others and a paper in the BMJ in 1997 reflected on two of life’s certainties – sex and death. It may be particularly relevant to some of you in the audience – the subjects were men aged 45 – 59. The results of their research clearly demonstrated that the mortality risk from coronary heart disease was 50% lower in the group with high orgasmic frequency – and there was evidence of a dose response relationship.

Another reflection from Solomon:

“Of making many books there is no end and much study wears the body”.
Ecclesiastes 12: 12.

So my advice is don’t overdo the studying and keep a balance in your life. Furthermore if you are writing a contribution to the scientific literature, remember to keep it concise – Watson and Crick used only 1½ pages to report: “A Structure for Deoxyribose Nucleic Acid”.

Our Specialty

And now a reflection on events nearer home.

Most people relate the scrutiny which our specialty has been under, to recent events with children’s heart surgery and Dr Shipman. However, let me take you back to the 1960s.

The BMJ of 11 May 1968 congratulated Donald Ross and the team at the National Heart Hospital on the success of the first British heart transplant on the 3 May (note the 8 days between surgery and publication!). This was the 10th heart transplant in the world - Christian Barnard performed the first in the previous December in South Africa.

The press initially celebrated this landmark event but then the mood changed. The front cover of Private Eye (5th July 1968) has a photograph of the 3 surgeons with a caption “okay so we goofed”. An insight into the politics and news coverage of the early transplants are provided in a recent book “*Hearts Exposed – Transplants in the Media in 1960s Britain*”.

One of the conclusions of the author is: “The first wave of transplants (1967 – 1968) marked a decisive period in post war history when the public’s trust in their doctors was significantly undermined and when medicine was held publicly to account as never before”. At one point she gives an insight into the clinical care. Referring to the third British heart transplant carried out on this occasion at Guy’s Hospital (on 16 May 1969) she quotes the then senior registrar Barry Ross (an ex President of this Society): “*After the Guys’ immunologist and cardiologist had made the pronouncements, the National Heart team would swan in and produce diametrically opposite views*”. Some might suggest that nothing much has changed in clinical practice!

She also gives a feel of the politics at the time. The National Heart Hospital was under tremendous financial pressure – ironically the

President's Address *continued*

heart transplant saved money because, in the absence of a formal intensive care unit at the time, the patient was nursed in the operating theatre. Despite the predictions of only a short stay, he stayed three weeks thus cancelling all operating – resulting in a considerable financial saving. The Ministry of Health had plans at that stage to close the National Heart Hospital and move it to the Brompton. She says “The surgeons at the National Heart Hospital feel strongly that what is being planned is not a cardiothoracic centre in which they will be equal partners with the Brompton but a bigger and better Brompton Hospital in which they will be lost without trace... the surgical team seem determined to move heaven and earth to get their transplant centre”. So you will see that the question of re-configuration of services and the politics involved are nothing new.

Despite all the public scrutiny doctors are still held in high regard by the public. At recent Ipsos MORI poll for the Royal College of Physicians in 2008 posed the question “Which profession do you trust to tell the truth”. Doctors at 92% were top of the list with journalists being at the bottom with 19%. Interestingly Professors were somewhat in the middle with 79%. Where that leaves Professors of Cardiac Surgery I don't know.

You will all be aware of **Dr Foster**, the Health Service Statistics Consultancy formed by two Journalists from the Sunday Times and Financial Times. Working with Professor Brian Jarman they analyse the mortality rates following procedures in all NHS hospitals. Many of your units will have received alerts from Dr Forster. This makes it all the more important that we have our own accurate and contemporary data with which to refute such concerns. The publication of the “Blue Book” by the Society last July was a huge achievement and sets the standards for other specialties to follow – the College of Surgeons have said that this should happen. The data shows a steady improvement in mortality over the years though it is hard to put this down to any specific actions. Heisenberg's “uncertainty principle” in quantum physics says that “The measurement of position necessarily disturbs a particle's momentum”. From this Hawthorne has derived his theory that simply observing a process you improve the results. Perhaps that is the explanation.

The British Medical Journal last year started the BMJ Awards – these follow from similar events run by Hospital Doctor in the past. This is the second year of the BMJ Awards and there are 10 categories. I have entered the Society for the best Quality Improvement category and out of 28 entries we have been shortlisted. The Awards ceremony is tomorrow so watch this space.

[PS subsequent to the meeting we were ranked in first place and the Society was given the Best Quality Improvement Award – a tribute to all members who have submitted data].

So that is data collection in cardiac surgery. It has long been my vision that we would have similar data for thoracic surgery – information is power. I am delighted that the thoracic surgeons, over the course of the last three meetings of the Thoracic Forum, have agreed a dataset and agreed in principle to data collection. I have written to all the Chief Executives at the thoracic units asking for support in data collection. Eight units are currently able to collect the full dataset and I am hoping that others will be able to follow. At our meeting last year in Bournemouth, Allesandro Brunelli who runs the ESTS database, came to our meeting – I am hoping his visit provided a further stimulus to data collection in thoracic surgery. We should take note – the National Cancer Intelligent Network recently produced a document and one of the relevant comments was: “Our long term aim is to monitor performance and outcome at least by hospital and clinical team and aspirationally by individual clinician”. A further driver to collect our own accurate data.

Results

Earlier in my talk I mentioned the issue of surgeon specific results and how we dealt with the analysis of the data this year. “Explaining Divergence”, our policy document, was followed. I have to say I did have some interesting discussions with some Medical Directors. However, most importantly what have we learned from this process this year? A number of units have had alerts from Dr Forster using the HES data which we were able to refute using our data. Clearly there were issues of data collection and validation in some units. There clearly has been a major issue with communication regarding the re-calibration of the EuroSCORE to reflect contemporary practice. This had been discussed at this meeting last year and at the Board of Representatives and yet it seems that we failed to get across the message that local clinical governance should be based on the re-calibrated EuroSCORE. I apologise for that breakdown in communication.

On the positive side a number of surgeons were in the situation of having their practice restricted by their Medical Directors and we were able to allay their concerns using the data and they got back to operating. Not surprisingly in view of the pressure and intensity of the work we

do, the results highlighted some professional relationship problems in some units but hopefully by bringing these out into the open for discussion, things could be resolved. In some cases, concerns had already been raised locally and investigations had been undertaken – this demonstrated that although the surgeons were outliers on our analysis, the issue was down to taking on a high risk case load. To me this showed that the system was working well. However it does throw up the question of whether we should confine or focus the analysis on lower risk cases – we certainly do not want to have surgeons who are so paranoid that

The first wave of transplants (1967 – 1968) marked a decisive period in post war history when the public's trust in their doctors was significantly undermined and when medicine was held publicly to account as never before

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President's Address *continued from page 39*

they will not take on high risk cases. It is also clear that we need to provide some more positive support, both for surgeons and for Medical Directors. In the few cases in which further investigation was apparently needed, we have used the Royal College of Surgeons "Invited Review Mechanism" – the Society does not get involved in any formal local review.

One of the most important things that this highlighted for me was that we need to support each other. Much of how we function as surgeons is based on our own in-built confidence in our ability. You will be aware of the experience of Professor Marc de Leval when he went through the difficult period of having a run of deaths with the arterial switch operation in babies. To his huge credit he analysed this issue in detail and has written a number of important publications. In the *Lancet* in 1997, he said "What I have learned most from my re-training is to re-gain confidence and also that one should never give up".

Performance

The Psychologists have a model which aids understanding of the relationship between performance and stress. We all understand that some stress is good - as the stress/arousal level increases your performance increases. However there is a peak performance after which further stress causes a decline. A group called "My Peak Potential Limited" has done some work with Leeds Metropolitan University looking at impaired performance. They highlighted the fact that this relates to lack of confidence, lack of motivation, inability to deal with stress and a negative mental attitude.

The writer of Ecclesiastes says:

"Two are better than one because if one falls down his friend can help him up".

We should take this to heart – we will probably all go through periods of doubt and lack of confidence during our career. I know that I have. As colleagues we need to recognise that and support each other through that process.

No Presidential Address would be complete without a look to the future. Need to remember though the words of Niels Bohr (Physicist 1885-1962) who said "Prediction is very difficult, especially about the future".

This is well illustrated in a clip from the BBC News www.news.bbc.co.uk/2008. A 58 year old man was given the diagnosis of mesothelioma with a prognosis of 9 months survival. He was feeling very positive and optimistic and so went to the "bookies" – William Hill gave him a 50/1 odds for a 2 year survival. In June 2008 he collected £5000.

So what of the future? We know our patients are getting older – this was clear in the analysis in the national database report. A recent article in the *BMJ* showed the predicted number of people over the age of 80 in countries around the world. The UK is somewhere in the middle of the range but the number over 80 predicted to double by 2030 and treble by 2050. Again we know from the database that older patients stay longer and will consume more resources.

This prompts me to reflect that our society (in general, not the SCTS) seems to have lost sight of the fact that death is a certain outcome of life. It seems that we don't talk about death and that death should occur in hospital rather than at home in family surroundings. This begs the question of what are we trying to achieve with our high tech medical care. Oscar Wilde's *Dorian Gray* tried to maintain his eternal youth with disastrous consequences. The recently appointed Roman Catholic Archbishop, Vincent Nichols, has attacked the NHS over lack of compassion. He said *"sometimes I believe people are perceived as a problem, a medical problem, a physical problem. Some hospitals see patients as no more than a set of medical problems."* He argued that calls for assisted suicide and euthanasia reflected a society that did not know how to deal with death.

"Sometimes I believe people are perceived as a problem, a medical problem, a physical problem. Some hospitals see patients as no more than a set of medical problems."

Archbishop Vincent Nichols

Training

Enough of death. So what of training in the future? We as a specialty, began discussing the impact of the European Working Time Directive back in 2002. A Working Group Report at that stage recommended that we move towards provision of service with surgeons' assistants and nurse practitioners as there would be fewer trainees. Some units began to do that and more are now following suit. I have been very frustrated to hear discussions on the European Working Time Directive from sources which should be better informed. There seems to be a belief that trainees have to leave on the dot of 48 hours in the week – in fact under the European Working Time Directive you can work up to 76 hours in one week. The whole focus of the directive is to ensure appropriate rest – it states that you should not work more than 13 hours at a stretch without a rest period. Personally I do not have a problem with that. The older generation here will remember going in to hospital on a Friday morning and coming home on Monday evening. Things were generally quieter in those days and we did get some sleep but that duty period was surely unacceptable and nobody could justify that. The other irony in the discussions is that current UK legislation (in the form of the "New Deal" which was implemented in 1991 under the previous Conservative Government) is more restrictive of working hours than the European Working Time Directive.

President's Address *continued*

The whole issue of training is up for discussion and **Sir John Temple** is currently undertaking a thorough review of how things are at present and where we should go in the future. The response of our Society and the SAC to this review has been that providing reorganise how we provide the service, we should be able to train surgeons of the future in 48 hours. However this will mean having designated Trainers focusing on training. It will also mean fewer middle grades and fewer trainees – most Consultants will not have a trainee or even a “Registrar”.

I hear many saying we should go back to the “firm” system – that only worked because there were many fewer Consultants. The number of Consultants in the NHS has increased significantly over the last 10 years and the mathematics no longer stack up to having a firm system.

Solomon, in Ecclesiastes said:

Do not say “Why were the old days better than these” for it not wise to ask such questions?”

A recent review in the ASGBI Newsletter 14 by Davy et al showed that even under MMC/ European Working Time Directive our trainees will have more hours of training than a NASA astronaut or a long haul airline pilot. Food for thought! Oscar Wilde said that experience is the name that everyone gives to their mistakes – this may have been acceptable when my generation were training but this is no longer so. We also have to realise that the dramatic changes in information technology have led to a different way of learning of the younger generations. My generation are referred to as “baby boomers” (post World War 2) and then we had Generation X (mid 60s to 1980s). The current generation is referred to as Generation Y – a review in the BMJ suggested that they are the Internet generation who are very comfortable with digital technology and are used to instant communication. Teaching will be different.

Who can predict the politics of the future? We are anticipating an election in May (PS by the time you read this the Lib Dem/Conservative coalition should be settled into place?). In the NHS a recent Foundation Trust Network paper (February 2010) called for a freeze in the increments in the Consultant salary scale, a capping of pensions, more specialists and fewer Consultants and a reduction in SPAs (supporting professional activities) in Consultant contracts. Radical suggestions!

We are also going to see significant reconfiguration – “*Healthcare for London*” have recently published the “*Case for Change*” (February 2010) which is looking at the provision of surgical specialties

including cardiothoracic surgery. **The NHS Management Board** has asked the National Specialised Commissioning Group to undertake a review of paediatric cardiac surgery provision with a mandate to have larger and therefore fewer centres. Units are going to be visited in May and June by a team led by Sir Ian Kennedy (Chair and senior author of the Bristol Inquiry) who will judge the units against standards which have been set for the future. A decision is expected in July.

We hear repeated calls for patients to have more information. Will this lead to the situation that I saw recently on the front cover of American Airlines magazine which featured the “*best Surgeons in America*”. You might think not but a publication sponsored by GMTV (“At Home”) has a resident health and medical advisor – Dr Hilary Jones. One of their sales consultants recently offered our unit a double page advertising spread for the sum of £3,900. She told us that some Trusts had already taken up this offer.

In the past the GMC standards for medical practice were very clear - referred to the 4 A's:

- Alcohol abuse
- Assassination (of colleague's reputation)
- Adultery (with patients)
- Advertising

Many felt that the last of these was the most serious! How times have changed.

Medico-Legal

We all recognise the steady increase in medico-legal cases. Figures from the NHSLA show an 11% increase on last year and 25% of these cases are surgical. Part of this may be due to the “no win no fee” financing of cases for the Claimant but this may change with the recent review by **Lord Justice Jackson** (Civil Litigation Costs Review January 2010).

Our specialty has always been predicated on technology. The future is likely to bring artificial arteries for grafting (BBC News 3 January 2010) and bio-engineered valves. We already have assist devices which are becoming more sophisticated – the left ventricular assist device which we currently use fits within the pericardium and the next generation is going to be even smaller.

However what of an artificial heart? If there are any Star Trek fans in the audience you will know that Captain Jean-Luc Picard (d.o.b 13.07.2305) who was Captain of the Star Fleet USS Enterprise, had an artificial heart implanted following a stabbing when

The 2008 USA Survey found that surgeons as a group had higher anxiety and depression scores. Of real concern was that this more apparent in younger surgeons.

President's Address *continued*

he was 23 years old. It functioned for 37 years before being replaced. J B S Haldane in 1939 in his book "Science in Everyday Life" said that "The problem of the artificial heart will be solved in the next 50 years". He wasn't quite accurate but the prediction is there. In 1963 the USA National Institute of Health started an official programme that they hoped would have a fully implantable artificial heart by Valentine's day 1970. The first artificial heart ever implanted was by Liotta and Cooley (April 1969). This actual heart is on display in the Smithsonian National Museum of American History. It was used as a bridge to transplant for 64 hours but the patient died 5 days post operatively (the typical outcome of transplant patients in that era). Up to the present - the Abioco total artificial heart (no percutaneous cables / lines) received FDA approval in 2006 as a destination advice but it has a predicted life span of only 2 years.

What has Airbus Industrie got to do with cardiac surgery? Some of you will remember that Professor Carpentier came to our meeting last year in Bournemouth and showed us the totally implantable artificial heart which the Airbus Industrie "Carmat" group have been developing over the last number of years. Interestingly he submitted the patent for this in 1986. He anticipates clinical trials by 2011. The technology is exciting but the impact on the NHS budget could be devastating.

So what of the future for thoracic surgery? Valerie Rush, one of our guest speakers at the meeting published a paper last year which suggests that VAT lobectomy should be the standard of care. There was no difference in 5 year survival and patients had fewer complications and a shorter length of stay. If this is accepted it will have major complications for re-training my generation of surgeons.

The Australians have recently lifted their moratorium on transplantation and a recent press release from the Alfred Hospital in Melbourne revealed that researchers have managed to keep pig lungs alive on a rig using human blood. They said "Experts believe animal to human transplants could be carried out within 5 years".

But let me finish with a little bit of reflection and philosophy. We all want to be happy – however we define happiness. The **President of the Western Surgical Society** in the USA in 2008 took for his Presidential Address the topic "*Life, Surgery and the Pursuit of Happiness*". He referred to a survey which demonstrated that surgeons as a group had higher anxiety and depression scores. Of real concern was that this more apparent in younger surgeons – my generation need to take note and support our younger colleagues. For some reason orthopaedic surgeons seem to be immune! The survey also did not show any relationship between money and income and those who had an optimistic outlook had a lower mortality. Despite all the jokes about marriage and mothers in law, married men had a 7.2% lower mortality. The Pew Institute in the States have said that

"Hectic pace, long hours and overlapping activities adversely impact on personal satisfaction". A description of a current Consultant role in the NHS?

The Economist Journal last year (19.09.09) had an Article entitled "*Measuring What Matters*". It was discussing a commission on the measurement of economic progress and social progress set up by President Sarkozy of France in 2008. Members included five with Nobel prizes in Economics. They concluded that we needed to move towards measures of quality of life and not merely GDP (gross domestic products which measures the value of good produced in services).

They also noted that rising incomes did not make people happier. Related to this topic was an article in BMJ Careers 21 which explored the public understanding of doctors. The first question was "Do you think doctors are overpaid?" The public were asked to rate doctors by specialty: GPs, Physicians, Surgeons. You will be gratified to know that only 1% of the public felt surgeons were overpaid (the lowest of the three group). Alternatively the question: "Do you think doctors work excessive hours?" - 35% of the public said yes to Surgeons. Things were more balanced with Physicians and General Practitioners.

Solomon in Ecclesiastes again: "*Whoever loves money never has enough, who ever loves wealth is never satisfied with his income*". So we need to reflect on what is really important in our lives.

Abraham Lincoln, the 16th President of the USA said "*It is not the years in your life that count, it is the life in your years*". Along similar lines George Eastman, the founder of the Eastman Kodak Company said in referring to work/life balance: "*What we do during our working hours determines what we have. What we do in our leisure hours determines what we are*".

So I end as I started with a quotation from Ecclesiastes:

"Naked a man comes from his mother's womb and as he comes so he departs".

We work in a very exciting and rewarding specialty. We make a significant difference to our patient's lives. We make a memorable impact on the trainees who work with us. We are very fortunate and in relative financial terms are well rewarded. However I would ask that we constantly remind ourselves of what is important in life and not allow work to overwhelm us. I have never met a Surgeon who in retirement says he wished he spent more time in the operating theatre.

Members of the Society it has been a huge honour to be your President and I thank you for that privilege.

Leslie Hamilton

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Openness and accountability have helped the Society for Cardiothoracic Surgery in Great Britain and Ireland steer the UK towards significant improvements in the safety of patients.

The society has bravely pioneered the collection of accurate data on outcomes among patients undergoing surgery and placed information on mortality rates in the public domain.

This approach, seen by some as controversial at first, was needed, says the society, because patient safety can be monitored and quality of care improved only if accurate data are available.

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Since its introduction the initiative has resulted in measurable improvements in safety; and despite patients being older and having more comorbidity in recent years, mortality rates have fallen steadily.

In a novel approach the society discussed with patients and the media how the data should be presented to the public. Under the auspices of the Healthcare Commission a "public portal" was set up to provide information on activity and outcomes for all units.

Leslie Hamilton, the society's president, says: "This award recognises the vision of our society to collect details on the outcome of our patients, the commitment and dedication of all cardiac surgeons to collecting good quality data, and the courage of our members to use the data to review performance in order to improve the quality of care for our patients.

"We have shown that good quality data collection is possible despite all perceived obstacles. Knowledge that outcomes in all units are under professional scrutiny gives reassurance to patients that their care will be of high quality.

"I hope this award will encourage other specialties to continue to develop processes to collect information on the outcomes of their patients."

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Diary of Forthcoming Events

Date: 9 - 10 SEPTEMBER 2010
 Town: LIVERPOOL UNITED KINGDOM
 Meeting: **Part III Revision (A highly interactive course on all aspects of cardiothoracic and oesophageal)**
 Venue: Liverpool Heart and Chest Hospital
 Contact: Mr. Mike Poullis, BSc(Hons), MBBS, MD, FRCS(CTh)
 Liverpool Heart and Chest Hospital
 Web: www.mpoullis.com/courses.htm

Date: 13 - 14 SEPTEMBER 2010
 Town: SOUTHPORT UNITED KINGDOM
 Meeting: **BACCN National Conference 2010**
 Venue: Southport Theatre and Convention Centre
 Contact: Rebecca Curry
 Phone: +44 (0)191 241 4523
 Fax: +44 (0)191 245 3802
 Email: info@baccnconference.org.uk
 Web: www.baccnconference.org.uk/index.php

Date: 23rd – 26th SEPTEMBER 2010
 Town: BIRMINGHAM, UK
 Meeting: **Birmingham Review Course in Cardiothoracic surgery**
 Venue: Education Centre
 Birmingham Heartlands Hospital,
 Bordesley East, Birmingham B9 5SS
 Contact: L.R. Associates – Ms. L. Richardson
 58, Kiln Close, Calvert Green, Buckingham, MK18 2FD.
 Telephone: 01296 733 823
 Fax: 01296 733 823
 Mobile: 077 111 32946
 Email: lorrainerichardson1@btinternet.com
 Web: www.birminghamreviewcourse.com

Date: 23 - 26 SEPTEMBER 2010
 Town: BIRMINGHAM UNITED KINGDOM
 Meeting: **Birmingham Review Course**
 Venue: Education Centre, Birmingham Heartlands Hospital, Bordesley East, Birmingham, B9 5SS
 Contact: Lorraine Richardson
 58, Kiln Close, Calvert Close
 Birmingham MK18 2FD
 Phone: +44 (0)1296 733 823
 Fax: +44 (0)1296 733 823
 Email: lorrainerichardson1@btinternet.com
 Web: www.birminghamreviewcourse.com

Date: 2 - 3 DECEMBER 2010
 Town: LIVERPOOL UNITED KINGDOM
 Meeting: **What You Need To Know As A Year One Registrar In Cardiothoracic Surgery (An interactive course on all aspects of imaging and perfusion in cardiothoracic and oesophageal surgery)**
 Venue: Liverpool Heart and Chest Hospital
 Contact: Mr. Mike Poullis, BSc(Hons), MBBS, MD, FRCS(CTh)
 Liverpool Heart and Chest Hospital
 Web: www.mpoullis.

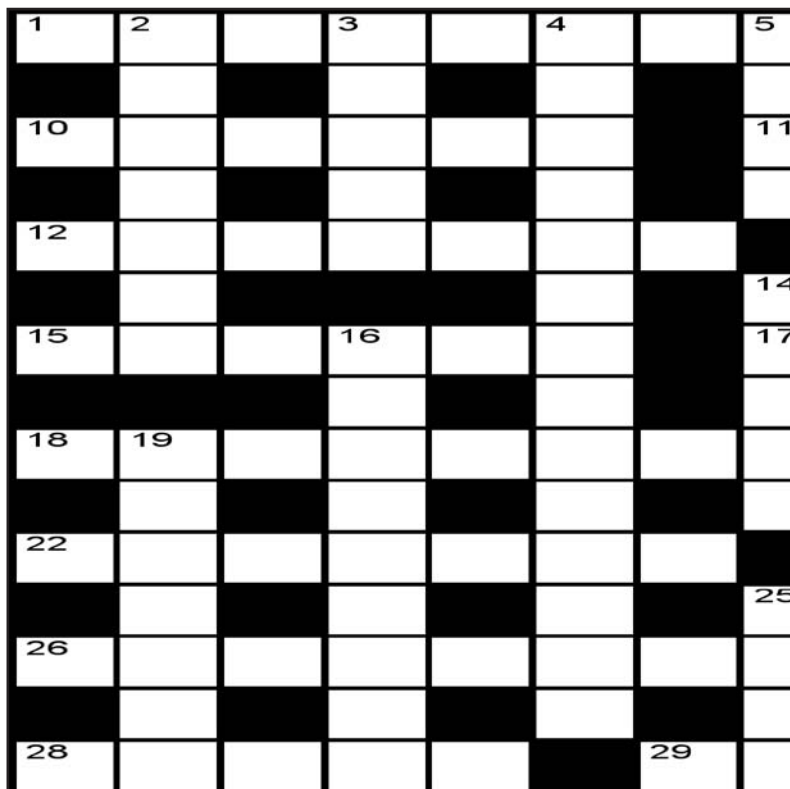
Date: 1 – 2 DECEMBER 2010
 Town: LONDON UNITED KINGDOM
 Meeting: **Imperial Valve Course**
 Venue: Imperial College Healthcare Trust
 Contact: Millbrook Medical Conferences
 Telephone: +44 (0)1455 552 559
 Email: IVC2010@millbrookconferences.co.uk

New Appointments

Name	Hospital	Specialty	Starting Date
Sunil Bhudia	Walsgrave Hospital	Cardiac	December 2009
Raj Jutley	Nottingham City Hospital	Adult Cardiac	January 2010
Tain-Yen Hsia	Great Ormond Street Hospital	Cardiothoracic	February 2010
Francois Lhote	Morrison Hospital	Thoracic	April 2010
Caner Salih	St Thomas' Hospital	Congenital Cardiac	April 2010
Edwin Woo	Southampton University Hospital	Thoracic	June 2010
Enoch Akowuah	James Cook University Hospital	Cardiac	July 2010

the crossword

by Sam Nashef



Across

- 1 Drink to celebrate with real pleasure? Sounds just the opposite! (9)
- 6 Seize up - certain not to end inside (5)
- 10 Viagra dealer's premium (5,1)
- 11 Surprising boards? (8)
- 12 Muslim preachers shall turn on Greek character (7)
- 13 Inane is inane (7)
- 15 He doubts a hundred (or a thousand) have gone dirty (6)
- 17/16/22 4's misrepresented, or next hour misrepresented (6,2,3,6,7)
- 18 Cross from egg store? (2,6)
- 20 See 2 Down
- 22 See 17
- 23 Pamphlet needed for heart valve (7)
- 26 Result of foul, unrestrained thrill (4,4)
- 27 Spiritualistic feature (6)
- 28/29 4's fellow filled with terrible hate, you once filled with love (5,2,3,4)

Down

- 2/20 4's woman's derrière too ripe to molest (7,6)
- 3 Badly made opening lecture gets award (5)
- 4 Story that has no beginning, that has no end, Jesus, that is a writer (6,8)
- 5 Vulgar loud enthusiast coming up (4)
- 7 Plain green site development (9)
- 8 Meet Truno? (3,4)
- 9 Keen customs officer might party while journeys reach disaster (2,1,5,6)
- 14 Yellow bream swimming (5)
- 16 See 17 Across
- 19 Short vehicle liberated off-shore (3-4)
- 21 In general work clothes (7)
- 24 Fun to play in bed (5)
- 25 Hide in Erskine (4)

Send your solution to:

Sam Nashef, Papworth Hospital, Cambridge CB23 3RE or fax to 01480 364744 by 31 July 2010. Solutions from areas over 10 miles from Cambridge will be given priority.

Last issue's winner:

The winner of the December 2009 crossword is **Jape Sheppard**, Deputy Chief Perfusionist, Royal Sussex County Hospital, Brighton





Solutions for Surgery

From Haemostats to Sealants

PRESCRIBING INFORMATION - TISSEEL

Lyo Two-Component Fibrin Sealant Ready to use Solutions for Sealant

(Please consult the Summary of Product Characteristics before prescribing)

Name and composition: Tisseel Lyo - powders and solvents for fibrin sealant. 1) Sealer protein concentrate; after reconstitution 1 ml contains 96-125 mg total protein of which 72-110 mg is fibrinogen; 2) Aprotinin Solution, 3000 KIU per ml; 3) Thrombin Powder, 1 ml contains 500 IU of Thrombin in 45-55 mg total protein; 4) Calcium chloride solution, 40µmol per ml.

Tisseel Ready to use – pre-filled double chamber syringe containing Sealer Protein Solution (with aprotinin) deep frozen in one chamber and Thrombin Solution (with Calcium Chloride) deep frozen in the other chamber. Sealer Protein Solution contains 91mg/ml human fibrinogen (clottable protein) and 3000 KIU/ml aprotinin. Thrombin Solution contains 500 IU/ml human thrombin and 40µmol per ml calcium chloride. Presentations of 1, 2 or 5ml in each chamber resulting in total volume of 2ml, 4ml or 10ml of sealant.

Indications: Supportive treatment where standard surgical techniques are insufficient, for improvement of haemostasis, as a tissue glue to promote adhesion, sealing or as suture support, in gastrointestinal anastomoses, in neurosurgery where contact with cerebrospinal fluid or dura mater can occur.

Dosage and Route: A thin layer is applied to the tissue surface where required. The dose depends on the size of the surface to be covered and method of application chosen. Apply topically – tissue surface should be as dry as possible before application. Application can be repeated if necessary.

Side effects: See Summary of Product Characteristics for detail. Hypersensitivity /anaphylactic/anaphylactoid reactions may occur, especially in patients who have previously received aprotinin. Early symptoms of allergic reactions include flushing, urticaria, pruritus, nausea, hypotension, tachycardia or bradycardia, dyspnoea. Do not inject – risk of thromboembolic complications.

Precautions: Apply with care in coronary artery bypass surgery due to increased risk of inadvertent intravascular application. TISSEEL and/or Thrombin Solution should only be applied topically. Use with caution in patients with prior exposure to aprotinin. Avoid solutions containing alcohol, iodine and heavy metals. Infectious diseases due to the transmission of infective agents cannot be totally excluded.

Contraindications: Do not apply intravascularly. Hypersensitivity to active substances or other components. Not for the treatment of active or spurting arterial or venous bleeding.

Interactions: Avoid solutions containing alcohol, iodine and heavy metals.

Overdose: Not reported. **Legal category:** POM

Basic NHS price: TISSEEL Lyo 2 ml kit - £78; 4 ml kit - £156; 10 ml kit - £355. TISSEEL Ready to use 2ml - £97.50; 4ml - £195; 10ml - £443.75.

Marketing Authorisation Number and Holder:

TISSEEL Lyo - PL 001116/0321. TISSEEL Ready to use - PL 001116/0627

Baxter Healthcare Limited, Caxton Way, Thetford, Norfolk IP24 3SE

Date of preparation: March 2010

Adverse events should be reported. Reporting forms and information can be found at www.yellowcard.gov.uk. Any adverse events relating to Baxter products should also be reported to Surecall – Baxter Medical Information on 01635 206345.

To order please contact Baxter Healthcare Customer service on 01635 206074

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ADV:10/2957B March 2010

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¹ Cox JL, et al. J Thorac Cardiovasc Surg 2005;130(2),520-527

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on cardiac surgery.