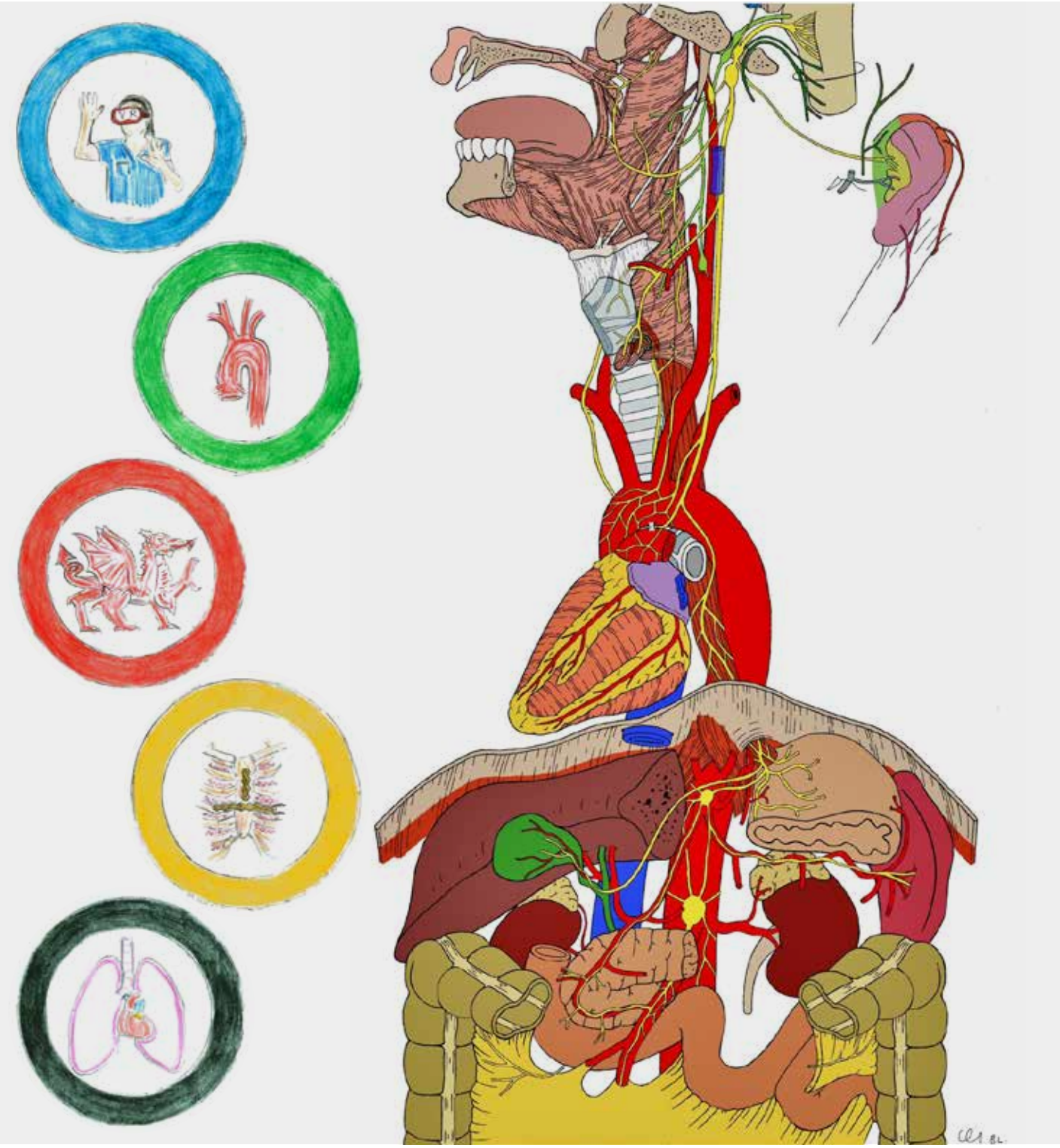
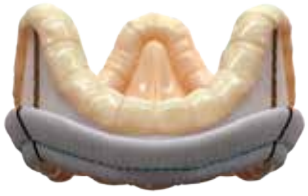
Issue 16
August 2024

the bulletin

Society for Cardiothoracic Surgery in Great Britain and Ireland



EPIC™ PLUS SUPRA
THE IDEAL VALVE OPTION FOR LIFETIME MANAGEMENT

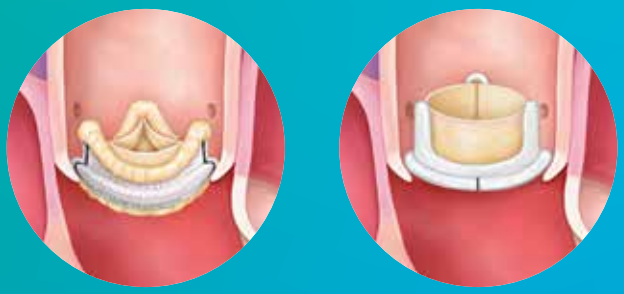


No other valve has been expertly engineered with non-curtaining leaflets,* a low overall profile, and fracture-friendly stent with future interventions in mind.

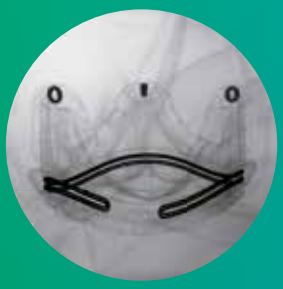
EPIC LEAFLETS DO NOT CURTAIN

Curtaining is a characteristic of pericardial leaflets where the leaflets form a curtain between stent posts that may present coronary obstruction risk (see right) or interaction with common suture affixation method.[1] In contrast, the leaflets of the Epic Plus Supra do not curtain and can mitigate coronary obstruction risk post-TAV-in-SAV.

For illustrative purposes only.
TAVI frame used is not meant to depict any specific valve.



Epic Plus Supra leaflet behavior vs. Inspiris‡



- Epic Plus Supra fractures at low pressures (8 atm)[2]
- Low profile stent posts[3]
- C-shape radiographic profile designed to facilitate expansion for future ViV

VALVE-IN-VALVE** SUCCESS[4]

>95%

Freedom From Valve Intervention 3-Years Post ViV

* Based on Abbott internal testing.
** The safety and effectiveness of valve-in-valve procedures in Epic Plus and Epic Plus Supra valves has not been established.

REFERENCES: 1. Technical report. Data on file at Abbott. 2. Allen, KB., Chhatriwalla, A., Cohen, DJ., et al. Bioprosthetic valve fracture to facilitate transcatheter valve-in-valve implantation. Ann Thorac Surg. 2017;104:1501-1508. 3. Epic Plus IFU 4. Fang, K. et al (2022, June) Three-year outcomes of Valve-in-valve intervention within the Epic™ Supra and Epic™ Mitral valves in a Medicare population. Poster presented at the TVT Annual meeting, Chicago.

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the bulletin
Society for Cardiothoracic Surgery in Great Britain and Ireland

In this issue ...

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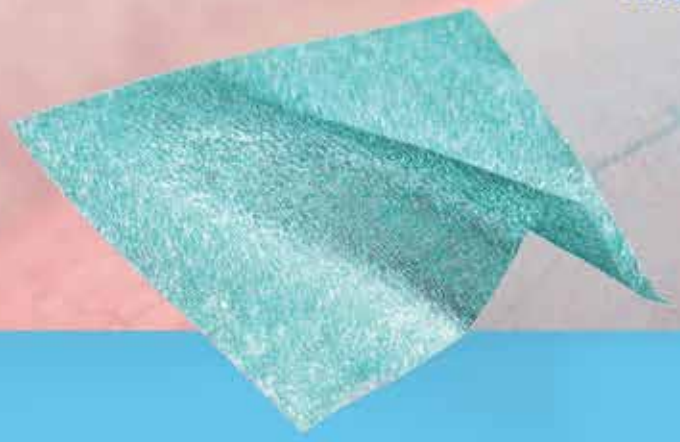
NEOVEIL™

REINFORCE SUTURED AREAS



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Low Risk Adhesions

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"James Cook University Hospital just like the other department we have been searching for many years to find the solution to airleak.

I have tried virtually everything including other tissue patches and every glue on the market.

I came to use Neoveil patches as a sceptic I have been stunned by how well this is working at the moment and so I am now using it in every case. I have definitely doubled the number of patients having their drain out on day one, and I have even achieved what I didn't think would be possible which is drains out on the same day as the lobectomy.

I am just gaining experience in this at James Cook University Hospital, we are working towards routine day one discharge and without pain or a drain there are no barriers to going home.

With Neoveil patches this is making the dream of day 1 discharge a reality for us"

Mr Joel Dunning
Consultant Cardiothoracic Surgeon

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From the Editor

Dionisios Stavroulias, Publishing Secretary, SCTS

It has been 30 years since the first edition of the Bulletin when Jules Dussek became the first Editor. Indu Deglurkar has taken excellent care of our publication for the last six years, and I can only hope that I will provide some interesting comments going forward. For those of you who haven't met me at our society meetings, I am Dionisios (Dio) Stavroulias, consultant thoracic surgeon in Oxford, where I have worked since 2013.

It has been an exciting year so far in our field, both in cardiac and thoracic surgery; the progress in our surgical world is mind blowing and if I could choose a single factor that will dramatically transform the nature of our reality, this will be the integration of AI into our practice.

In his presidential report, Narain Moorjani highlights the benefits of the Adult Cardiac Surgery Database, such as monitoring units' specific for each procedure morbidity and mortality outcomes and benchmarking them against the national average. The Thoracic Surgery Priority Setting Partnership through the James Lind Alliance will provide an important boost to thoracic surgical research for several years.

"It has been an exciting year so far in our field, both in cardiac and thoracic surgery; the progress in our surgical world is mind blowing and if I could choose a single factor that will dramatically transform the nature of our reality, this will be the integration of AI into our practice."

Our Honorary Secretary, Rana Sayeed, presents the ongoing discussion with regards to bullying and sexual harassment; it is positive to hear the Society has now introduced mandatory training for all educational course faculty and a code of conduct for the annual meeting. From this report we are reminded that the 2024 AGM Special Resolution adopted the revised constitution and welcomed in June the newly Elected Trustees at the Executive Meeting.

The updates from our NAHP colleagues inform us about the new appointments in key positions, the popular courses available and the great on going and future research projects. The NIHR Associate PI Scheme which will allow NAHP to become associate principal investigators is an excellent initiative for the forthcoming trials in cardiac and thoracic surgery.

It was a pleasure to read the plethora of courses available and running successfully for both NTNs and TADs in the Education Report by Elizabeth Belcher and Deborah Harrington. The Intuitive-sponsored Robotic Thoracic Surgical course in Oxford was particularly popular and received outstanding feedback.

Coming from a TAD background myself, I found the establishment of the Portfolio Route Course and the places created for TADs in the current available courses very promising. Elizabeth and Deborah deserve congratulations in mitigating differential attainment between the two groups of trainees.

The cardiac surgery report, penned by Manoj Kuduvalli, opens with the persisting long waiting times several units still experience around the country. The increased number of patients coming through urgent ACS pathways aggravates further the existing problem.

Karen Redmond offers us a detailed report on the thoracic surgical front; updates on sublobar lung resection, neoadjuvant treatment for early-stage lung cancer and pectus surgery are just few of the fascinating topics. I am fully in favour of her drive for our society to be involved in NICE guideline revisions.

Andrew Parry reminds us of the current challenges in congenital cardiac surgery; the continuous struggle in accessing PICU resources, the decrease in available homografts in our country, how the congenital community is trying to tackle this problem and above all the failure in retaining congenital cardiac surgeons. A staggering 60% of the consultant workforce has been lost in the last eight years.

Karen Booth's article "Equality is Quality" piqued my interest as over the past weeks I have been reading Michael Sandel's masterpiece "Justice: What's the Right Thing to Do?". Karen does not argue for affirmative action for female surgeons, and yet her message is clear when she examines the percentages of women occupying consultant posts.

Closing this editorial, I would like to thank Emma Piotrowski, the cornerstone of the Bulletin, as well as the editorial board, Narain, Sri, Aman and Rana. Their support has been immense and continuous.

The national elections held on the 4th of July celebrated the noblest feature of our long-established democracy: the peaceful and civilised change of power as voted for by the nation. I wish our new government success in looking after one of the greatest health systems our planet has witnessed: our NHS.

Enjoy your reading!

Please send any comments to my email: **dionisios.stavroulias@ouh.nhs.uk** ■

From the President

Narain Moorjani, SCTS President, Consultant Cardiac Surgeon, Royal Papworth Hospital, Cambridge

As many of you will be reading this during the summer, hopefully enjoying a well-earned rest, the outcome of the UK general election will be known and potentially plans will have been set out to tackle the challenges that we all face in the NHS, especially pertaining to waiting lists, staffing shortages and industrial action. The SCTS are working hard alongside the Royal Colleges of Surgeons (RCS) and Federation of Surgical Specialty Associations (FSSA) to ensure our voice is heard to provide a better working environment to enable us to deliver improved outcomes for patients.

I wanted to start this report by reflecting on this year's SCTS Annual Meeting held in Newport, Wales. Whilst the Celtic Manor is probably best known for hosting the dramatic finish to Ryder Cup in 2010, this year's Annual Meeting equally provided great entertainment, as well as excellent educational content and a vision for the future of cardiothoracic surgery. With a record attendance of over 1100 delegates and exhibitors, it was fantastic to see the enthusiasm and energy of all present. Congratulations to Cha, Sunil, Carol, Nisha, Rosalie, Emma, Tilly and Maika for delivering a fantastic conference and we look forward to next year's conference in Edinburgh.

During the meeting, the Society described the progress on many of the projects that the Executive have been working on over the past year. This includes the Adult Cardiac Surgery Database, which has now been set up and will allow units to review their own data in terms of monitoring both mortality and morbidity outcomes but also benchmarking their results to the national averages at a granular level for the different cardiac surgical operations, as well as the overall unit outcomes. It will also provide an exciting opportunity for the Society, as well as SCTS members and their units, to develop nationally driven audit projects to allow us to determine current national cardiac surgical practice and additionally to identify best practice and improve the care that we offer to patients undergoing surgery. Thank you to over half of the Units in the country that have submitted their data sharing agreements (DSA) and a big plea to the remaining Units to send in their DSA so that the database can provide more comprehensive information.

In the second plenary session at the Annual Meeting, the Society continued to support SCTS Research in its drive to deliver large multi-centre trials through collaboration of all the units in the country. Following on from the great success of the SCTS Research-led Priority Setting Partnerships in Adult Cardiac Surgery and Congenital Cardiac Surgery, we are in the process of securing funding for a Thoracic Surgery Priority Setting Partnership in Thoracic Surgery through the James Lind Alliance. This will define the priorities for the thoracic research community for the next 5-10 years and enable the funding bodies to support the crucial projects that have the potential to directly influence the clinical care we deliver.

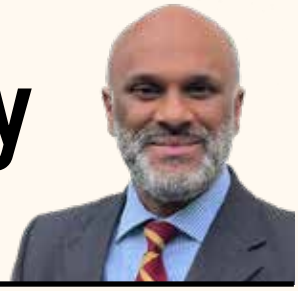
The third plenary focussed on innovation in cardiothoracic surgery, with an insight into how we will be practicing in the future, including the use of artificial intelligence and some novel ways of delivering education through extended reality. The session underpinned the priorities of the SCTS moving forward to ensure that cardiothoracic surgery in the UK remains as leaders in the field and potential opportunities for new ways of delivering healthcare.

At the most recent SCTS Annual Business Meeting (ABM), the SCTS set out its ambitious plans for the year ahead. As well as the Thoracic Surgery PSP and further expansion of the Adult Cardiac Surgery Database, the Society is in the process of developing a thoracic surgery dataset that will provide meaningful outcome measures for Thoracic Surgery to augment the current information available from the Thoracic Surgery Returns. The Society are also proud to announce the launch of its first SCTS Post CCT Fellowships, which will deliver expert training in the specialist areas of cardiothoracic surgery not covered in the curriculum, including complex mitral valve surgery, robotic thoracic surgery and thoracic aortic surgery. We hope this will be the start of many post CCT Fellowships to enable trainees the opportunity to develop specialist practices for the future. In parallel, the SCTS is developing initiatives to support its Outreach and Widening Participation programme and Sustainability in Cardiothoracic Surgery, as well as developing an updated Workforce Report in conjunction with the Cardiothoracic Surgery Specialty Advisory Committee (SAC). The Patient Safety and Quality Improvement repository has also gone live, where practitioners can submit learning derived from patient safety incidents and also examples of best practice to be shared.

The ABM also saw the new SCTS Constitution finally approved, which has enabled us to elect non-Consultant cardiothoracic surgical practitioners as Society Trustees. It was a real pleasure to welcome Tara Bartley as the first SCTS Nurse and Allied Health Professional (NAHP) Trustee, Ghaith Qsous as the first Trust Appointed Doctor (TAD) Trustee and Rushmi Purmessur as the first Nationally Appointed Trainee (NTN) Trustee to our most recent SCTS Executive Meeting in June.

Lastly, I wanted to express my deep gratitude to the SCTS Executive, sub-committee members, BORS representatives, educational course directors and faculty, and especially the membership for their amazing help on delivering the projects and initiatives that the SCTS have set up. It is through everyone's great support that we are able to improve patients' outcomes. I wish to express my particular thanks to Cha Rajakaruna, Betsy Evans, Andrew Parry and Bhuvana Krishnamoorthy for their outstanding service to the SCTS, as Meeting Secretary, Trustees and NAHP Lead, respectively, who have completed their term of office. I am also eternally thankful to the SCTS administration staff who work tirelessly behind the scenes to make the SCTS run so efficiently. ■

From the Honorary Secretary



Rana Sayeed, Honorary Secretary, Consultant Cardiac Surgeon, John Radcliffe Hospital, Oxford

One of the most egregious and sadly memorable examples of bullying I have witnessed was over 30 years ago as a callow medical student. Another medical student, captain of the women's teams, left a sports club dinner in tears to rowdy chants of 'no women'. The institution had started to admit women undergraduates five years earlier, but subsequent cohorts of students, who would only have known a mixed-sex environment, had perpetuated a culture of misogyny and intolerance. My involvement with that institution has been limited over the last three decades, and I have often reflected on how I should have reacted. I cautiously welcomed the news that friends' daughters had been admitted to that same institution and was pleased to learn that they had flourished in a much more welcoming culture. I recently attended a ceremony there to find the atmosphere was palpably different. Unacceptable but seemingly persistent cultures can change for the better, but how?

Last year's *British Journal of Surgery* article and the allied Working Party on Sexual Misconduct in Surgery (SMS) report describing the shocking prevalence of SMS was followed by the sobering Surviving in Scrubs *Surviving Healthcare* report. In response, there have been many reports and recommendations at all levels of our professional hierarchy. NHS England has published its *Sexual safety in healthcare – organisational charter* committing to a zero-tolerance approach to unwanted, inappropriate, or harmful sexual behaviour; many NHS Trusts, the Royal College of Surgeons of England (RCS), and the Royal College of Nursing are signatories. The latest version of the GMC's *Good Medical Practice*, active from January 2024, has been updated to include specific guidance on preventing bullying and sexual harassment. The Royal College of Surgeons of Edinburgh has issued its *Living Our Values* Code of Conduct with a similar message. The President of our Society continues to work with the FSSA and the RCS to develop their own strategy on preventing bullying and sexual harassment. The Society has introduced mandatory training for all educational course faculty and a code of conduct for the Annual Meeting.

These reports share many recommendations to address SMS including improved support for victims, revised workplace policies, better reporting mechanisms, and more robust investigation of incidents, but most important to change workplace culture is education. There must be better education to recognise and take appropriate action on sexism, sexual misconduct, and other forms of bullying and harassment for all healthcare staff from established consultants and senior nurses down to medical and nursing students. And two of the most valuable components of such education are active bystander training, to equip individuals to recognise and challenge all forms of unacceptable workplace behaviour, and allyship training, to support others and improve equality and inclusion in the workplace.

Becoming an active bystander is difficult and there are many obstacles: inappropriate behaviours may have been normalised to be accepted or ignored; surgery is hierarchical and senior figures difficult to challenge. A helpful intervention strategy is 'the 4 D s' based on the Green Dot programme in US universities, and other organisations have adopted versions of this scheme such as Transport for London:

The 4 Ds

- Direct action: speaking up the moment you witness something, and balancing being assertive and confident without being aggressive
- Distraction: moving attention away from the incident by cutting in with another topic
- Delegation: getting someone else to help, or reporting the incident
- Delay: taking more time to think, plan and have necessary conversations

Robert Cerfolio delivered a thought-provoking talk at the Annual Meeting on improving efficiency in healthcare. One of his central themes was that, as individuals, we should all strive to improve and become better in all aspects of our professional and personal lives: he reported that he collected times for his children playing in the yard at home to encourage them to improve! For us to change the workplace culture and stamp out sexism, SMS, and bullying and harassment, we all need to become better colleagues and allies.

The SCTS Executive has also improved to become more diverse and representative.

The membership voted to accept the Executive's proposal to review the SCTS Constitution at the 2022 Annual General Meeting. Two years later, the 2024 AGM Special Resolution to adopt the revised constitution was passed by a large majority (97.1% in favour). The Society held elections for its first Trustees from the wider membership in May and early June.

We were delighted to welcome our new Elected Trustees at the Executive meeting in June.

- **NAHP Trustee:** Tara Bartley – Corporate Lead Advanced Practice, University Hospitals Sussex, Lead Advanced Clinical Practitioner, University Hospitals Birmingham
- **TAD Trustee:** Ghaith Qsous – Specialty Doctor in Cardiothoracic Surgery, Royal Infirmary of Edinburgh
- **NTN Trustee:** Rushmi Purmessur – ST6 in Cardiac Surgery, Royal Papworth Hospital

Tara Bartley had served as the NAHP Lead over 2006 to 2012 when she had been one of only two female Executive members for several years. Over a decade later, almost one-third of the current Executive is female.

We look forward to working with our new Trustees representing the views of the wider membership at the highest level of the Society. ■

[1] **https://careers.doctors.net.uk/careers/1mMsi73FgsZzpIHlSw534g?_gl=1*uwf1om*_gcl_au*MjE0NTk5MTg1Mi4xNzE4NjU2MjExLjkxMDgzMzkyNy4xNzE5MDkyMjQ0LjE3MTkwOTIyNDQ.** (accessed 22 June 2024)

SCTS Meetings Report

Cha Rajakaruna, SCTS Meeting Secretary, Consultant Cardiac Surgeon, Bristol Royal Infirmary

Nisha Bhudia, SCTS NAHP Meeting Lead, Lead Pharmacist, Critical Care and Anaesthesia, Royal Brompton and Harefield Hospitals, on behalf of the meetings team

This year's Annual Meeting was at the International Conference Centre in Wales. Delegates flocked to the venue from a busy roundabout, off the M4 near Newport to find we were all trapped in a good way at this amazing new venue. The woodlands attached to the world famous Celtic Manor Resort made an impressionable backdrop. We had 1,142 registrations. Most delegates attended all three days, but some could not and took advantage of our newly introduced daily admission pass. Feedback was that it was one of the best venues we had ever been to!

The SCTS University kicked off with a series of lecture-based sessions with national and international experts delivering knowledge in the form of building blocks to the latest updates. In cardiac, the highlight was the first ever session dedicated to saving more lives with the introduction of the latest circulatory support devices in the non-transplant arena and the latest techniques of minimally invasive cardiac surgery. Robotic assisted thoracic surgery has gained popularity in the UK over the past few years.

Meetings Team at ICC Wales venue

NAHP Wetlab session lead by Bhuvana Krishnamoorthy

NAHP Wetlab session lead by Tara Bartley and Kathryn Hewitt


Thoracic session at the SCTS Annual Meeting 2024

We were delighted to have a session dedicated to robotic surgery to educate and inspire the developing thoracic surgeons in the UK. Also a spotlight was on Pectus deformities to further the pectus agenda of the SCTS.

The NAHP University Day began with an all day wet lab session attended by 127 delegates and university research and audit day sessions were attended by total of 144 delegates. The wet lab sessions consisted of the cardiac sessions in the morning that included mitral and aortic valve, aortic dissection, AF ablation, open sternotomy, coronary anatomy, and CABG stations. The afternoon thoracic session included surgical skills session, core knot simulation training session and laparoscopic skills simulation.

The main university day programme included sessions delivered by expert speakers that gave inspirational talks and shared tips with delegates to get involved with audits, quality improvement projects and high-quality research projects. The day ended with a focussed session for perfusionists and AHP interactions and a workshop-based interactive session on supporting clinical debriefing. The SCTS student engagement sessions were very popular. They were welcomed to the NAHP wet lab sessions and attended the Pat Magee abstract presentation session, where the six best abstracts were presented.

The SCTS University could not close without paying our respects to the legend that was Marian Ionescu, cardiac surgeon, innovator, inventor, philanthropist, benefactor and mountaineer. Members benefited from the sponsorship of the Ionescu University and the highly rewarding fellowship programmes.


Professor John Pepper and guests at the Lifetime Achievement Award Lunch


Professor John Pepper receiving the Lifetime Achievement Award


Professor John Pepper and Narain Moorjani with the Lifetime Achievement Award

Industry partners of the SCTS pledged their support in many unique ways in 2024. It started with a much bigger than usual demand for lunch box sessions, which doubled from the usual three to six rooms. The organising committee were able to deliver these slots due to the capacity of the venue and the obvious expansion of the NAHP and student sessions. In addition, the breakfast and evening symposia were numerous and well attended. The faculty invited to deliver industry sponsored sessions uplifted the standard of the educational and main meeting keynotes, and the organisation committee would like special thank you to all industry session and exhibitors for making the meeting financially viable.

On Monday 18th March, the President opened the main meeting by presenting delegates the latest achievements of the SCTS, a progress report of the speciality in the UK and a vision for the future. The topic of sexual misconduct in surgery was given centre stage with an overview of the issue in the UK surgical specialities by Tamzin Cummings. Our own specialty has made great strides to try to address this. We were presented with a toolkit and our own code of conduct for the conference was acknowledged. Professor Cerfolio from New York University Hospitals then followed with an inspirational talk on efficiency in healthcare by compassionate leadership: how we could get more for less. The session was concluded by honouring one of our giants Professor John Pepper with the SCTS 2024 Lifetime Achievement Award.

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This year the research plenary had a focus on multidisciplinary research. The delegates heard from leading UK researchers from a multidisciplinary background. We also focused on equality and diversity and barriers for involving multidisciplinary patient groups in multicentre prospective research. The innovation plenary brought together two very special inspirational surgeons who had dedicated their work to developing artificial intelligence to help surgery, and how a structured approach through the surgical innovation centre at the Royal College of Surgeons of England has the potential to change the landscape of our profession.

The meetings committee were delighted to work with the congenital subcommittee to develop and deliver their one day congenital programme with focused lectures from national experts and presentations of the best congenital abstract. This year's revised daily rate especially facilitated the congenital focused delegates to attend.

The abstract driven scientific sessions showcased the best national and international abstracts. The quick-fire moderated poster sessions were given their dedicated rooms. Delegates were able to rate the presentations on the new interactive SCTS 2024 App. The markings to select the prize winners were a weighted combination of the programme committee marks, app review and the ranking performed by the chairpersons who moderated the sessions.

Heart Research UK sponsored the Lifetime Achievement Award and the HRUK lecture. To celebrate the 45th anniversary of heart transplantation the lecture was delivered by Mr Marius Berman highlighting the journey of cardiac transplantation in the UK.

The NAHP stream in the main meeting ran over the two days with some excellent abstract sessions delivered with focus on enhancing and improving patient care in cardiothoracic surgery. Professor Enoch Akowuah presented an excellent session about preparing patients for surgery and Sarah Murray talked about patient perspective, which was an eye opener to hear what the patients go through during their surgical journey. We had some excellent international speakers including Kari Hanne Gjeilo from Norway who talked about improving pain after cardiothoracic surgery. This year we delivered a collaborative session with SCTS and CONNECT and will be working towards collaborative and shared learning projects together. We had a session delivered by Felicia Kwaku on promoting collaboration, equality, diversity and inclusion in cardiothoracic surgery and the NHS, which was truly a revelation.

NAHP Session at the SCTS Annual Meeting 2024

Maika Jiménez running the Flamenco workshop

Emilie Parry-Williams, performing at the SCTS Annual Dinner

An excellent session delivered by Dr Simon Mattison on improving patient safety through a better understanding of human factors triggered thought-provoking discussions and sharing of insights on this topic, which affects everyone in their work life. The sessions were drawn to an end with an art of being brilliant by Suzie Lavington who shared tips on how to shine on our daily working and personal lives.

The social highlights of the meeting were spectacular. There was a welcome reception arranged in the exhibition hall where the exhibitors opened their stands to attending delegates and mingled over canapés and assorted beverages. The WiCTS got all of us into our dancing shoes and we all enjoyed the flamenco workshop delivered by our very own Maika Jiménez. Pub quizzers got together the same evening showing signs of healthy competition amongst different groups and institutions. The main social event was our SCTS annual dinner full of glitz, glamour, and prohibition style understated fashion. The attendees wined, dined, and danced until the early hours with a spectacular classical soprano performance from Emilie Parry-Williams. It was a memorable evening bringing together friends and colleagues. And for the first time, the NAHP team awards were announced during the annual dinner to celebrate and share the amazing work of all the teams in enhancing our patients care.

Every year the annual meeting aims to be educational, informative, relevant, and impactful. Yet again, the 2024 gathering without exception delivered and was a huge success.

Finally, to the Meeting's team news! We would like to thank Sunil Bhudia, Carol Tan and Rosalie Magboo for their ongoing hard work as deputy and associate meeting leads. We are very grateful to Emma Piotrowski, Maika Jiménez, Tilly Mitchell and the wider SCTS admin team for their contributions to the success of SCTS 2024. Sunil now takes the rains of Meeting Secretary with Carol as Deputy. Mr Gianluca Lucchese has been appointed as Associate Meeting Secretary.

We remain humbled by the generosity of all our members who volunteer their services and expertise at the SCTS meeting. We look forward to seeing you all in Edinburgh.

SAVE THE DATE

16th to 18th March 2025 at EICC Edinburgh – dedicate your study budget – support your NAHPs – promote your work at SCTS 2025! ■

SCTS Executive Committee

President: Narain Moorjani | **President-Elect: Aman Coonar** | **Honorary Secretary: Rana Sayeed**

Honorary Treasurer: Mark Jones
Communication Secretary: Sri Rathinam
Lay Representative: Sarah Murray
Trainee Reps.: Bassem Gadallah, Walid Mohamed
Meeting Secretary: Sunil Bhudia
Education Sec.: Deborah Harrington, Elizabeth Belcher
Nursing & AHP Rep: Amanda Walthew
Perfusion Reps: Gianluca Lucchese, Betsy Evans
Elected Trustees: Manoj Purohit, Vipin Zamvar, Attilio Lotto, Karen Redmond, Indu Deglurkar, Espeed Khoshbin, Tara Bartley (NAHP), Rushmi Purmessur (NTN), Ghaith Qsous (TAD)

Co-opted Members
Adult Cardiac Surgery Co-Chair: Manoj Kuduvalli
Research Co-Chairs: Mahmoud Loubani, Eric Lim
Innovation Co-Chair: Vasileios Tentzeris
Transplantation Co-Chair: Rajamiyer Venkateswaran
Equality, Diversity & Inclusion Co-Chair: Indu Deglurkar
Women in Cardiothoracic Surgery Co-Chair: Ralitsa Baranowski
Audit Co-Chair: Uday Trivedi
SAC Chair: Tim Jones
Exam Board Chair: Sri Rathinam
Cardiothoracic Dean: Neil Roberts

SCTS Administration
Mara Banuta
Taet Chesterton
Maika Jiménez
Tilly Mitchell
Emma Piotrowski

Adult Cardiac Surgery

Co-Chair: Manoj Kuduvalli
Deputy Chair: Hari Doshi
Executive Co-Chair: Narain Moorjani
Appointed Members: Hari Doshi, Georgios Krasopoulos, Giovanni Mariscalco
Audit Leads: Uday Trivedi, Dimitrios Pousios (Deputy)
Education Lead: Deborah Harrington
NAHP Representatives: Lisa Carson, Kathryn Hewitt
Trainee Representative: TBC
Co-opted Members: Andrew Goodwin (NICOR), Peter Braidley (NHS Commissioning)

Thoracic Surgery

Co-Chair: Karen Redmond
Executive Co-Chair: Rana Sayeed
Deputy Co-Chair: Rory Beattie
Appointed Members: Joel Dunning, David Healy, Leanne Ashrafian, Mark Jones, Syed Qadri, Malgorzata Kornaszewska, Nizar Asadi, Mathew Thomas, Hanad Ahmed, Simon Kendall
Audit Leads: Kandadai Rammohan, Nathan Burnside (Deputy)
Education: Elizabeth Belcher, Michael Shackcloth
NAHP Representative: Xiaohui Liu
Physiotherapy Lead: Zoe Barrett-Brown/Hema Chavan
Trainee Representatives: Jeesoo Choi, Joe McLoughlin
Co-opted Members: Emma O'Dowd (BTS), George Tsaknis (BTOG), Guillermo Martinez (ACTACC), Aman Coonar (NHSE), Babu Naidu (PSP), Sridhar Rathinam (LVR), Doug West (NCIP/GIRFT)

Congenital Cardiac Surgery

Co-Chair: Andrew Parry
Executive Co-Chair: Aman Coonar
Unit Reps.: Giuseppe Pelella, Tim Jones, Natasha Khan, Conal Austin, Branko Mimic, Ramana Dhannapuneni, Mark Danton, Ed Peng, Barnabe Rocha, Fabrizio De Rita
Audit Lead: Serban Stoica
Education Lead: Shafi Mussa
NAHP Representative: TBC
Trainee Representative: Shubhra Sinha

Transplantation

Co-Chair: Rajamiyer Venkateswaran
Executive Co-Chair: Aman Coonar
Audit Leads: Marius Berman
Website Lead: Aisling Kinsella
Education Lead: Espeed Khoshbin
NAHP Representatives: Emma Matthews, Zoe Barrett-Brown
Trainee Representatives: Bassem Gadallah, Walid Mohamed

Audit

Co-Chair: Uday Trivedi
Executive Co-Chair: Narain Moorjani
Adult Cardiac Surgery Leads: Uday Trivedi, Dimitrios Pousios (Deputy)
Regional Deputy Adult Cardiac Surgery Leads: Indu Deglurkar (Wales), Zahid Mahmood (Scotland), Alastair Graham (Northern Ireland)
Thoracic Surgery Leads: Kandadai Rammohan, Nathan Burnside (Deputy)
Congenital Cardiac Surgery Lead: Serban Stoica
NAHP Representatives: Hemangi Chavan, Nisha Bhudia, Zainab Khanbhai, Rosalie Magboo
Co-opted Member: Andrew Goodwin (NICOR)

Education

Co-Chairs: Deborah Harrington, Elizabeth Belcher
Executive Co-Chair: Aman Coonar
Surgical Tutors: Michael Shackcloth (Thoracic), Mahmoud Loubani (Cardiac)
Congenital Cardiac Surgery Lead: Shafi Mussa
Transplant Surgery Lead: Espeed Khoshbin
NAHP Representatives: Kathryn Hewitt, TBC
National Trainee Representatives: Bassem Gadallah, Walid Mohamed
Trainee Representative: Michelle Lee
Consultant Leads: Prakash Punjabi, Shahzad Raja
Trust Appointed Doctors Leads: Anas Boulemden (Cardiac), Mohammad Hawari (Thoracic)
Student Lead: Jason Ali
Accreditation Lead: Shafi Mussa
Communication Lead: Vivek Srivastava
Website Development Lead: Christopher Horton

Research

Co-Chairs: Mahmoud Loubani, Eric Lim
Executive Co-Chair: Sunil Bhudia
Adult Cardiac Surgery: Gianluca Lucchese
Thoracic Surgery: Babu Naidu
Congenital Cardiac Surgery: Attilio Lotto
NAHP Representatives: Rosalie Magboo, Zainab Khanbhai, Hemangi Chavan, Nisha Bhudia
Trainee Representative: TBC
Medical Student Leads: Niraj Kumar, Gokul Raj Krishna
Co-opted Members: Rana Sayeed (National Cardiac Surgery Trials Prog Steering Comm Rep.), TBC (Cardiothoracic SSL), Luke Rogers (aSSL), Ricky Vaja (aSSL), Akshay Patel (aSSL), Jacie Law (aSSL), Ann Cheng (aSSL), Brianda Ripoll (aSSL), Moslem Abdelghafar (aSSL), Hind Elhassan (aSSL)

Professional Standards

Co-Chair: Sarah Murray
Executive Co-Chair: Indu Deglurkar
NAHP Lead: Amanda Walthew

Meetings

Meeting Secretary: Sunil Bhudia
Executive Co-Chair: Sri Rathinam
Deputy Secretary: Carol Tan
Associate Secretary: Gianluca Lucchese
NAHP Meeting Leads: Nisha Bhudia, Rosalie Magboo (Associate Lead)
Conference Organisers: Tilly Mitchell / Maika Jimenez, Emma Piotrowski

Innovation

Co-Chair: Vasileios Tentzeris
Executive Co-Chair: Rana Sayeed
Appointed Members: Ishtiaq Ahmed, Alex Cale, Massimo Caputo, Roberto Casula, Ranjit Deshpande, Joel Dunning, Hazem Fallouh, Rafael Guerrero, Shyam Kolvekar, Kelvin Lau, Nicolas Nikolaidis, Karen Redmond, Stephan Schueler
Trainee Representatives: Joshil Lodhia, Bassem Gadallah, Walid Mohamed
NAHP Representatives: Una Ahearn, Bhuvana Krishnamoorthy
Lay Representative: Sarah Murray

Equality, Diversity & Inclusion

Co-Chair: Indu Deglurkar
Executive Co-Chair: Narain Moorjani
Appointed Members: Giovanni Mariscalco, Rashmi Birla, Cecilia Pompili, Nicole Asemota, Nikhil Sahdev, Shagorika Talukder, Ahmed Abbas, Chiemezie Okorocha, Hanad Ahmed, Aswani Pillai, Ramanjit Kaur, Charlie Bailie, Adam Borrer, Samuel Burton, Jeevan Francis, Sathyan Gnanalingham, Anoop Sumal

Nursing & Allied Health Professionals (NAHP)

Co-Chair: Amanda Walthew
Executive Co-Chair: Sri Rathinam
Regional Tutors: Libby Nolan, Michael Martin, Namita Thomas, Yi Wang
Cardiac Lead: Kathryn Hewitt
Thoracic Lead: TBC
Audit Lead: Hemangi Chavan
Transplantation Lead: Emma Matthews
Innovation Lead: Una Ahearn
Membership Lead: TBC
Communication Lead: Jeni Palima
Pharmacy Lead: Nisha Bhudia
Critical Care Lead: Anna Gesicka
Perfusion Lead: Lisa Carson
Physiotherapist Lead: Zoe Barrett-Brown
Research Lead: Zainab Khanbhai
Physician Associate Lead: Ramanjit Kaur
Surgical Care Practitioner Lead: ACTSCP President – Nisha Nair

Women in Cardiothoracic Surgery (WiCTS)

Co-Chair: Ralitsa Baranowski
Executive Co-Chair: Narain Moorjani
Academic Cardiothoracic Rep: Julie Sanders
Cardiac Surgery Reps: Rashmi Yadav, Debbie Harrington
Trainee CT Surgery Reps: Michelle Lee, Georgia Layton
Thoracic Surgery Reps: Cecilia Pompili, Melanie Jenkins, Elizabeth Belcher
Congenital Surgery Rep: Carin Van Doorn
CT Transplantation Rep: TBC
Specialty Doctor Rep: Laura Viola
Executive invited Member: Betsy Evans
Surgical Care Practitioner Rep: TBC
Advanced Clinical Nurse Practitioner Rep: TBC
Clinical Perfusionist Rep: TBC
Medical Student Rep: Asmita Singhania

Communications

Co-Chair: Sri Rathinam
Executive Co-Chair: Rana Sayeed
SCTS Website: Clinton Lloyd
Bulletin Editor: Dionisios Stavroulias
NAHP Representative: Jeni Palima
Consultant Living Text Book Co-Leads: Bilal Kirmani, Jeremy Smelt
Perfusionist Representative: Lee Clark
Education Website Development Lead: Christopher Horton
Trainee Members: Hanad Ahmed, Raisa Bushra, Maria Comanici, Francesca Gatta, Georgia Layton, Rohith Govindraj

Patient Safety Working Group

Co-Chair: Andrew Parry
Deputy Chair: Vanessa Rogers
Executive Co-Chair: Sri Rathinam
Appointed Members: Ismail Vokshi, Ruhina Alam, Jane Dickson, Jody Stafford, Branko Mimic, Sarah Murray

Trainees

Trainee Rep (Senior): Bassem Gadallah
Trainee Rep (Junior): Walid Mohamed
Education Trainee Rep: Michelle Lee

Society for Cardiothoracic Surgery
in Great Britain and Ireland

SCTS ANNUAL MEETING 2025

Sunday 16th - Tuesday 18th March

CALL FOR ABSTRACTS

Abstract Submission Opens: 1st September 2024
Abstract Deadline: 5th November 2024
Registration Opens: 1st December 2024

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SCTS Nurses and Allied Health Professional Update

Prof Bhuvaneswari Krishnamoorthy, Outgoing SCTS Nursing and AHP Chair, Chair in Health and Social Care and Postdoctoral NIHR Research Fellow, University Hospital of South Manchester NHS Foundation Trust

I love writing summer reports sitting on the patio because of the blue skies with a peek-a-boo sunshine, chirping blackbirds and the gentle breeze that keeps me awake. My term as SCTS NAHP Co-chair achieved milestones with all your continuing support, encouragement, and guidance. I am so grateful to all of you for being my strength, some of you as my mentor and educator. This is my final report, and I would like to say thank you to all the members for your tremendous support during the past three years.

What have we achieved together?

- Increased our NAHP membership.
- Great NAHP educational portfolios.
- National NAHP team celebration awards.
- Inspirational star of the NAHP articles.
- SCTS toolkit for NAHPs and advanced practitioners.
- Mental health and wellbeing toolkit.
- Voting right for the SCTS NAHP board of trustees.

"I am so grateful to all of you for being my strength, some of you as my mentor and educator. This is my final report, and I would like to say thank you to all the members for your tremendous support during the past three years."

New NAHP Co-chair:

I would like to introduce you to our new NAHP Co-Chair Mrs Amanda Walthew (Mandie). She is currently working as a lead cardiothoracic surgical advanced practitioner at Liverpool Heart and Chest Hospital. She has twenty-eight years of cardiothoracic experience, mostly in thoracic surgery. Mandie has been collaborating with other NAHPs nationally for over ten years. In 2016, she became the thoracic subcommittee NAHP lead. She is driven and passionate about sharing best practices, providing education, and protocol development to ensure patients receive the best service and care nationally. She will be great in this leadership role and bring exciting opportunities for our NAHP members.

National NAHP leads advertisements:

We are currently recruiting NAHP leads for the following professional groups: Cardiac NAHP lead; Thoracic NAHP lead; Advanced Practitioner lead; Operating Department Practitioner lead; Perfusionist lead; Transplant NAHP lead and Pharmacist lead. ■

NAHP Education Update

Kathryn Hewitt – Cardiothoracic Advanced Clinical Practitioner, University Hospitals Birmingham NHS Foundation Trust

It has truly been an honour to take over as NAHP Education lead in March. We have successfully run monthly webinars exploring varied topics across the cardiothoracic specialty. Topics have included: Debriefing; ASDs in Adult Congenital Surgery; Transplant Medication Management; Management of the deteriorating patient and Enhanced Recovery. Please share with your colleagues and join us at 6pm on the first Wednesday of every month.

We are extremely fortunate to have two final Ionescu Fellowships of £2500 each. Applications closed in July.

As an education team, we continue to look towards providing standardised competencies that can be used in Cardiothoracic Units throughout the UK. If you would like to get involved with this, please get in contact through SCTS Education (**Education@scts.org**). ■

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NAHP Thoracic Surgery Update

Xiaohui Liu – Thoracic Advanced Nurse Practitioner, University Hospital Southampton NHS Foundation Trust

Time has flown by over the last three years; my term as NAHP Thoracic Surgery lead will come to an end in August. It has been a privilege working with many great colleagues across specialties over this time.

We have delivered a series of online webinars by our excellent thoracic colleagues. In addition, the annual NAHP Core Thoracic Surgery Skills Courses have attracted junior doctors, physiotherapists, nurses, and allied health professionals.

These courses would not be successful without their support and without the help from Mara Banuta at SCTS Education.

I am looking forward to meeting the future NAHP Thoracic Surgery lead. ■

NAHP Research and Audit Update

Hemangi Chavan – SCTS NAHP Research and Audit Lead, Advanced Practitioner Thoracic Surgery/PSP, Royal Brompton and Harefield Hospitals

NAHP research and audit day

The SCTS NAHP research sub-committee has established several initiatives to support nursing and allied health professionals, clinical academic careers and research opportunities in cardiothoracic surgery in the UK.

University Research and Audit Day

We hosted the fourth NAHP University research and audit day at the 2024 annual meeting in Wales. The university day sessions were very interactive, well attended, and were a huge success. We received excellent feedback from the delegates.

National QI project on prevention of Atrial Fibrillation After Cardiac Surgery (AFACS)

This is a multicentre audit examining atrial fibrillation after cardiac surgery (AFACS) with support from the SCTS Audit Committee. Mrs Nisha Bhudia presented audit results from seven centres utilising an agreed AF prevention care bundle. The data showed a significant reduction in the incidence of AFACS through early administration of beta-blockers post-cardiac surgery and improvement in adherence to the agreed bundle. We are looking for more centres to join this national project. If interested, please get in touch with Nisha Bhudia (**n.bhudia1@nhs.net**).

Mentorship Programme

The NAHP Mentorship Programme was launched in 2022. It provides SCTS members with access to research mentorship and with essential resources to enable them to excel in their research journey. The membership form can be accessed via the following link: **https://scts.org/professionals/surgical_sub_specialities/ct_forum/research_audit.aspx**

Supported Associate Principal Investigator Scheme

On University Day we introduced a scheme for NAHPs to become an associate principal investigator. This NIHR Associate PI Scheme is a six-month, in-work, training opportunity, that provides practical experience for health and care professionals starting their research careers. We are currently supporting two randomised controlled trials for the scheme:

(1) (SLIMCARD trial) and (2) Wound Imaging Software and Digital platfOrM to detect and prioritise non-healing surgical wounds (WISDOM study). Please contact Rosalie Magboo: **Rosalie.renamagboo@nhs.net** or visit **https://www.nihr.ac.uk/health-and-care-professionals/training/associate-principal-investigator-scheme.htm** for more details.

Supporting the Cardiac Surgery National Trials Initiative

We have provided NAHP representation to the Cardiac Surgery National Trials Initiative. This group helps define areas of uncertainty in cardiac surgery research, develop research themes that will shape the agenda for a national heart surgery research programme and pump prime potential research teams who can come together to develop high-quality research proposals for funders. As part of the initiative, the NAHPs are currently identifying the barriers and facilitators in conducting research in cardiac surgery across the United Kingdom.

Upcoming activities

SCTS National Research Day: This will be held in November 2024. ■

NAHP Cardiac Update

Lisa Carson, Deputy Principal Perfusion Scientist, SCTS NAHP Perfusion Lead, Glenfield Hospital, Leicester

The adult cardiac surgical committee presides over matters concerning all aspects of adult cardiac surgery including training, education, mentorship, workforce planning and research.

The NAHP presence on the adult cardiac committee has been useful when discussing roadblocks to higher uptake in minimally invasive mitral valve surgery, particularly for obtaining proctorship support for all team members during the early stages of their programme start-up.

A significant variation in practice in non-ECMO centres undertaking post-cardiotomy ECMO has been identified. The adult cardiac committee are working to develop guidance/position statement on post- cardiotomy ECMO which would be supportive and helpful to all the membership to standardise care and responsibility.

NAHP Perfusion Update/ SCTS University Day

Following on from last year's first-ever perfusion led session at the SCTS University Day, a programme was composed that looked at perfusion issues that are greatly impacted and influenced by the wider multidisciplinary allied healthcare team. The session entitled 'Perfusion & Allied Health Care Interactions' saw an insightful presentation by Dr Haifa Lyster (Consultant pharmacist from Royal Brompton & Harefield Hospital) looking at dosing of antifungals for patients receiving ECMO support, and how we should be more mindful of the circuit interactions when dosing our patients.

ECMO cannulation practice, The Simulator Company Ltd (Sagar Haval)

An interactive session discussed the use of TALK (Jody Stafford, Cardiff & Vale University Hospital), a new clinical debriefing tool that has been introduced into several hospitals across Europe.

The tool signposts how to make debriefing a regular conversation about patient care, where every person's perspective matters.

Upcoming perfusion led educational sessions for 24/25 include the in person 'post-cardiotomy VA ECMO study day'. Bring your multidisciplinary team along to experience hands on learning. The date is yet to be confirmed. ■

SAC Chair Report

Timothy Jones, Chair of the Cardiothoracic Specialty Advisory Committee, Consultant Paediatric Cardiac Surgeon, Birmingham Children's Hospital

Cardiothoracic Surgical practice is ever evolving. There are an increasing number of areas of sub speciality practice treating patients presenting with increasingly complex pathologies and co morbidities. The curriculum, incorporating the syllabus, is the roadmap for training. It is important the curriculum and our training pathways prepare surgeons for contemporary practice. The current curriculum has been in place since 2021. Our curriculum leads Elizabeth Belcher and Mahmoud Loubani, supported by members of the SAC, have recently completed a review of the curriculum and updated the syllabus, Index and Major Cases as well as PBAs to better reflect current practice. Any changes such as removing any existing PBAs will be archived on ISCP, so will no longer be accessible for new assessments however, previously completed versions will remain in a trainee's ISCP portfolio. Once the changes have been approved by stakeholders including the JCST and GMC we will inform all trainees and trainers.

It is important all trainees complete their training with a broad and comprehensive knowledge and skill set. Whilst fellowships undertaken during training may provide opportunities for sub speciality training the curriculum is not able to deliver sub speciality training, in all aspects of cardiac, thoracic, congenital and transplant surgery. The national training programs in congenital and thoracic surgery provide existing opportunities. To meet the demand of current practice four National Post CCT fellowships have been created for sub speciality training in Robotic Thoracic Surgery, Complex Aortic Surgery and Complex Mitral Surgery. The fellowships are the result of collaboration between the SAC, SCTS and The Royal College of Surgeons of Edinburgh and a lot of work by Elizabeth Belcher.

As well as meeting the changing needs of training we also recognise methods of training and the way people learn changes. We welcome Mike Shackcloth as the National Online Training Program Director. The National Online Training Program has been launched and centrally funded for all surgical specialties to deliver core knowledge aligned to the curriculum and SCTS Educational Course via on line tutorials and resources. This improves trainees access as well as freeing up time within training programs for more practical hands on and practical training, especially using simulation. Mike is already underway with the challenge of developing the program and please can all trainers support him and the program by agreeing to deliver teaching sessions and ensure your trainees use the resource.

We have seen the development and success of simulation training from low fidelity knot tying and suturing set ups to high fidelity animal and cadaveric models. A lot of the surgical techniques we use can be replicated by simulation. There is widespread evidence our trainees and our own operative and no operative skills can be developed and improved by regular use of simulation. Sri Rathinam who was the SAC Lead for simulation and developed the national simulation training program has handed over to Dheeraj Mehta who is currently developing ways to improve the use and effectiveness of simulation training. All Assigned Education Supervisors (AESs) and surgical departments need to ensure there is access to surgical simulation facilities for all trainees.

Throughout the training program trainees can undertake periods of time 'Out of Program' or OOPs. Typically, these periods are used to undertake research, specialist training as well as breaks from training. There are different types of OOPs depending on the indication. We are seeing increasing confusion and inappropriate requests around OOPs. They are there to help and support trainees in their development. There are specific requirements that must be met and it is important any trainee considering an OOP discusses it in advance with their Training Program Director and potentially their Head of School of Surgery.

Completion rates for national JCST and GMC national trainee and trainer surveys have improved but remain low at 20%. These are key to monitoring the quality of training and must be completed by all trainees. Shahzad Raja is the SAC Lead for training and responds and disseminates all feedback from the survey to TPDs and training programs. In the latest surveys trainees' satisfaction with training, clinical supervision, teamwork and supportive environment was positive and in keeping and better than some surgical specialities. 85% of responders rated their practical experience as good or very good. Worryingly, this year there's a further increase in the proportion of negative responses regarding burnout, continuing the trend observed since 2021. Cardiothoracic surgery trainees exhibited a significantly higher burnout rate (24.4%) compared to the overall surgical specialty average (22.7%). Any trainee can access confidential help and support from their local training program (NHS WFT / HEE) and School of Surgery.

The training surveys identify some of our trainees continue not to receive a minimum of two and ideally three days per week in the operating room. We are currently looking at different types of rota patterns to improve the time trainees can spend in theatre. In addition, we remind all trainers that NHS cases being undertaken in the independent sector are all potential training cases as directed by the NHS, Royal Colleges and JCST.

National selection this year saw a record number of applicants enabling the appointment of 15 high quality training to ST1 cardiothoracic and ST4 thoracic national training numbers. National selection remains online but we are developing the process to ensure the selection of the most appropriate and best applicants for training. This year Steven Tsui, who has over the years contributed a huge amount of time and effort in leading, delivering and developing national selection, steps down and hands over to Steven Wooley as lead.

If you require any further information or want to discuss any of the above, please do not hesitate to contact either me, Bassam Gadallah or Walid Mohamed, our trainee representatives on the SAC.

Finally, if you are interested and committed to developing and improving training and would like to become a member of the SAC, please contact either me or any SAC member. We are recruiting two to three new members per year. ■

Research Sub-Committee Report

Prof Eric Lim, Consultant Thoracic Surgeon and Professor of Thoracic Surgery, SCTS Research Co-Chair, Royal Brompton Hospital and Imperial College London (NTRII Co-Chair)

Prof Mahmoud Loubani, Consultant Cardiothoracic Surgeon, SCTS Research Co-Chair, Castle Hill Hospital, Hull

The sub-committee is going through a period of change in membership and welcoming new faces with fresh and exciting ideas and saying thank you and best wishes to members who have been very active and contributed to the SCTS research agenda.

Nigel Drury has demitted his position as the Congenital Surgery Lead and this will be taken up by Professor Attilio Lotto. Nigel will continue on the sub-committee in his role as the lead for the congenital surgery priority setting. We also welcomed Sunil Bhudia as the executive representative on the sub-committee.

The Surgical Specialty Lead Position has been demitted by Professor Gavin Murphy who has used this role to raise the profile of cardiac surgery research in the UK and internationally. The SCTS executive has kindly agreed to continue to fund this position. It was advertised and we hope to appoint jointly with the Royal College of Surgeons of England the next SSL. This post is open to both cardiac and thoracic surgeons.

> **"The Subcommittee is going through a period of change in membership and welcoming new faces with fresh and exciting ideas and saying thank you and best wishes to members who have been very active and contributed to the SCTS research agenda."**

Two new Thoracic Associate SSLs have been appointed recently following interviews and we welcome Moslem Fathy and Hind Elhassan to the role. They will join the team of Thoracic and Cardiac aSSLs to support the development and leadership of the Cardiothoracic Interdisciplinary Research Network. The CIRN restructuring is in the final stages and will become the trainees' vehicle in the development and conduct of research in the UK. The CIRN can boast the successful delivery of NIHR Programme development grant on schedule with reports already submitted. The next plan is to submit a HTA Application in collaboration with Rezini Group on a multi-speciality surgical trial of £10 million. The CIRN has been invited to stage two of the application process with promising feedback. This will potentially be the largest pan-surgical trial in the UK looking at surgical site infection. Thermic 4 Trial is a trainee-led trial which has four sites opened and is aiming to open more in the next few months.

The Academic Trainees are currently led by Marius Roman, who wants to step down and hand over leadership to someone with fresh ideas. This will be advertised in due course but in the meantime, he will continue to provide Peer-to-Peer Support and aims to complete academic trainees' data collection on the current academic trainees and their placement types.

The NAHP team delivered an excellent research programme on the recent annual meeting in Newport. It received positive feedback on the presentations and content of the sessions. The AF Project led by NAHPs was presented and it is aimed to expand to a successful atrial fibrillation project nationally. More centres have expressed interest, and there's hope for further engagement. Information may be added to the SCTS website. Two registered trial practitioners are currently supporting trials as Associate PIs. A Research Webinar was planned for June 2024 and the group have been in preparation for abstract submissions and future conferences.

The next National Cardiothoracic Research Meeting will be held on November 1st, likely as a virtual event. It aims to build on the success of the previous meetings and to present a high level research conducted in the UK. The possibility of accommodating a perfusionist session within the National Cardiothoracic Research Meeting will be explored. This could involve perfusionist abstract submissions and a guest speaker.

Thoracic Surgery Research Lead Babu Naidu is going to take the lead on delivery of the thoracic priority setting initiative in collaboration with the James Lind Alliance with potential start in September. The funding remains an issue but efforts are being made to secure that.

The Research Sub-committee was honoured again to be give a plenary session at the SCTS Annual Meeting. This was delivered with the theme of interdisciplinary and inclusive research with a number of high calibre speakers. It received excellent positive feedback with high satisfaction scores of 80% in the top two categories. Multiple comments praised the multidisciplinary nature of the session. ■

SCTS Education Secretaries Report

Debbie Harrington, SCTS Co-Education Secretary,
Consultant Cardiac Surgeon, Liverpool Heart and Chest Hospital

Elizabeth Belcher, SCTS Co-Education Secretary,
Consultant Thoracic Surgeon, Oxford University Hospitals NHS Foundation Trust

The Education Subcommittee is pleased to welcome new members. Zahid Mahmood has demitted as SCTS Trust Appointed Doctors Cardiac Education Lead, and we welcome Anas Boulemden, Consultant Cardiac Surgeon at Nottingham University Hospitals, to this role. We would like to thank Zahid for all his work over the past few years, which has contributed to the expansion of the Trust Appointed Doctors Portfolio. Chris Horton, Thoracic Fellow in Oxford, has been appointed SCTS Education Website Development Lead, and Michelle Lee, Thoracic Themed National Trainee in London, has been appointed SCTS Education Trainee Representative.

Michael Shackcloth, Consultant Thoracic Surgeon at the Liverpool Heart and Chest Hospital and SCTS National Thoracic Tutor, has been appointed National Cardiothoracic Online Training Programme Director and Georgia Layton, East Midlands National Trainee, has been appointed as National Cardiothoracic Online Training Fellow. SCTS Education looks forward to working with them both to deliver Cardiothoracic Education. See page 48 for further details.

We remain grateful to our Subcommittee members, Course Directors, and Faculty in all our education streams for their ongoing efforts to provide education in our speciality.

Industrial Partnerships

SCTS Education would like to thank our industrial partners for their generosity and support in these challenging financial times. SCTS Brand Partnerships are held with Abbott, Acumed, Ambu, Artivion, Atricure, Baxter, Cook Medical, Conmed, Edwards, Ethicon, Intuitive, Getinge, Lemaitre, Medela, Medtronic, Pulmonx, Serb, Storz, and Terumo UK and Transmedics. We look forward to announcing more exciting new partnerships in the coming months.

"We remain grateful to our Subcommittee members, Course Directors, and Faculty in all our education streams for their ongoing efforts to provide education in our speciality. And we would like to thank our industrial partners for their generosity and support in these challenging financial times."

Fellowships

SCTS Education is delighted to announce that Heart Research UK Fellowships have been awarded to Nader Moawad, Luke Rogers, Gareth Hooks, Charlene Tennyson and Azar Hussain. The Aortic Centre Trust Michael Warburg Travelling Fellowship for 2024 and the SCTS NAHP Fellowships 2024 have been advertised. The successful applicants will be announced soon. All applications for Fellowships must provide as much detail as possible of the proposed project plan, including support from the home and planned visiting centres. Details of projected costs and the subsequent benefit to the NHS are also vital to a successful application.

NTN Portfolio

The ST3.2 Phase 1 Human Factors – Non-Technical Skills for Surgeons Course ran at Bristol Simulation Centre, and the ST6 Phase 3: Revision and Viva Course for the FRCS (C-Th) at Ashorne Hill at Ashorne Hill in the Spring. Over the summer, the ST4.2 Phase 2: Core Thoracic Surgery Course and the ST2.2 Phase 1: Introduction to Specialty Training Course were delivered at Ashorne Hill.

A range of new SCTS Education courses have been developed. In February, an Intuitive-sponsored trainee Robotic Thoracic Surgery Course for NTNs and TADS ran at Intuitive Surgical Headquarters, Oxford, and we are grateful to

Intuitive for partnering with SCTS Education to deliver this course. The ST5.2 Phase 2 Cardiothoracic Intensive Care and Critical Conditions Course was delivered for the second time at Ashorne Hill. The three courses sponsored by Ethicon, which were previously delivered in Hamburg, have been redesigned with the ST3.1 Phase 1 Operative Cardiothoracic Surgery Course delivered in Medizin im Grunen, Berlin in May and the ST5.1 Phase 2 Cardiothoracic Surgery Sub-Speciality Course and the ST7.1 Phase 3: Cardiothoracic Surgery Pre-Consultant Course both delivered at Keele Anatomy & Surgical Training Centre.

The ST7.1 Phase 3: Cardiothoracic Surgery Pre-Consultant Course 2024 at Keele Anatomy & Surgical Training Centre

We were delighted to partner with both Artivion and Atricure, as well as Ethicon, at the ST7.1 course and look forward to working with them again for future courses. We are grateful for the feedback provided for the courses. Recent course feedback highlights the excellent training opportunities provided with knowledge and helpful faculty. Constructive feedback is important, and we use this to improve our courses.

We continue to ask that trainees update us with their contact details and current year of training, including examination status so that we can ensure they are invited to the correct course at the appropriate time. This is particularly important for trainees who have been out of training. Early response to invitations to attend courses will ensure places are secured.

TAD Education

In line with the SCTS strategy of increasing equality of opportunity, we aim to continue to improve access to education for our Trust Appointed Doctors. The newly named Portfolio Route (previously known as CESR) Course and TAD Wetlab Course will run later this year.

Course	Location	Date
Cardiothoracic Surgery Update and Wetlab for Trust Appointed Doctors	Ashorne Hill	11th – 12th September 2024
ST2.1 Phase 1: Essential Skills in Cardiothoracic Surgery Course	Nottingham City Hospital	23rd – 24th September 2024
Curriculum Review Course for Trust Appointed Doctors	Ethicon Pinewood Campus	3rd – 4th October2024
Portfolio Route (formerly CESR Application) Course for Trust Appointed Doctors	Ashorne Hill	8th November 2024
ST1 Phase 1: Introduction to Cardiothoracic Surgery Course	Ashorne Hill	15th November 2024
ST4.1 Phase 2: Core Cardiac Surgery Course	Ashorne Hill	18th – 20th November 2024
ST7.2 Phase 3: Leadership and Professionalism Course	Ashorne Hill	28th – 29th November 2024

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The ST5.2 Phase 2 Cardiothoracic Intensive Care and Critical Conditions Course 2024 at Ashorne Hill

We continue to discuss a 2024 TAD Curriculum Review Course with Ethicon. We have created delegate places at the ST6 Revision and Viva Course for all candidates attending the May diet of the JCIE FRCS CTh examination and SCTS members. We hope this will assist in mitigating differential outcomes. We will continue offering TAD trainees places in as many of our courses as possible in 2024.

Transplant Portfolio

The SCTS Harefield Core Thoracic Organ Transplantation Course, Star Centre, Harefield Hospital, was held in May and received excellent feedback from the multidisciplinary delegates who attended.

Congenital Portfolio

The Congenital Heart Disease Wetlab Course ran in June at Ashorne Hill and was once again well received. We are grateful to LeMaitre and Aquilant for their sponsorship of this course and look forward to continuing to partner with them.

NAHP Education

The NAHP portfolio includes a combination of face-to-face, online, and webinar courses. The 2024 NAHP Webinar Series is held monthly and is aimed at Allied Health Professionals and Foundation Doctors. The NAHP Core Thoracic Surgical Skills Course was held in May at Ashorne Hill and received excellent feedback.

Lastly, we would like to reiterate our gratitude to our fantastic administration team, Mara Banuta, aided by Taet Chesterton, without whom SCTS Education would not exist. Please let them know if your contact details or level of training change so that we can update our records accordingly and ensure you are appropriately invited to SCTS Education events. (**Education@scts.org**).

We wish everyone a healthy and happy remainder of 2024 and look forward to welcoming as many of you as possible to SCTS Education events. ■

"In line with the SCTS strategy of increasing equality of opportunity, we aim to continue to improve access to education for our Trust Appointed Doctors. The newly named Portfolio Route (previously known as CESR) Course and TAD Wetlab Course will run later this year."

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References:
1. Custodiol Solution for cardioplegia / organ preservation. Summary of Product Characteristics, 2024;
2. Hummel B. et al. Innovations 2016;11: 420-424

SCTS Education Tutors' Report

Michael Shackcloth, SCTS Thoracic Surgery Tutor, Consultant Thoracic Surgeon, Liverpool Heart and Chest Hospital

Prof Mahmoud Loubani, SCTS Cardiac Surgery Tutor, Consultant Cardiothoracic Surgeon, Castle Hill Hospital, Hull

It is over 10 years since SCTS education organised the first courses at the J&J Institute in Hamburg. With the Institute closing in December 2023, SCTS had to find new venues for the three live operating courses.

With less than six months to find venues, the ST5 and ST7 course were moved to the Anatomy department at Keele University. The ST7 course worked particularly well with the cadaveric models, as the trainees needed to learn the nuances of the operations rather than the technical skills necessary to perform them. The ST5 course was also well received but the live operating was missed.

In mid-May, the ST3.1 course was held at the Medizim im Grunen venue. Gone were the bright lights of Hamburg, replaced by the tranquil lakeside town of Wendisch Reitz one hour south of Berlin airport. The facilities were excellent, the staff welcoming, and the tranquillity provided an excellent learning environment. A big thank-you to the perfusion team from the UK who worked brilliantly together and with the trainees. This was the first time we had used UK perfusionist and it really added to the overall delegate experience and course dynamics. It was clear that the live operating model remains the best and highest fidelity simulation for both cardiac and thoracic surgical training. We are confident that this will be the beginning of a new partnership between the team at Medizin im Grunen and SCTS education.

Faculty and delegates at the ST3 course near Berlin

As well as operative skills, it is important trainees are schooled in the non-technical skills that are required to be a surgeon. The two courses in the SCTS education portfolio that teach these skills are the Professional Development course (ST7.1) and the ST3.1 Human factors: Non operative Technical Skills course at the Bristol simulation centre. These two courses help surgical trainees prepare for the challenges that they face in their future career.

In February, the first SCTS robotic thoracic surgery course took place at Intuitive Surgical's UK headquarters in Oxford. The course gave trainees an introduction to robotic surgery with the aims of speeding up their transition from the simulator to performing real life cases. The course feedback from the trainees was excellent and hopefully this course will become a regular addition to the SCTS education portfolio.

Other successful courses for national trainees that have taken place over the last six months include ST6 Revision and viva course, ST4.2 Core Thoracic Surgery Course, and the ST2.2 Introduction to Specialty Training in Cardiothoracic Surgery. We would like to thank all course directors and faculty for the time and effort they put in to making these courses so successful.

A list of future courses is below. In addition to the TAD portfolio of courses, we are now able to allocate vacant places on NTN courses to Trust Appointed Doctors (TADs). It is therefore essential that National Trainees and TADs secure any place offered in a timely manner. ■

Course	Location	Date
ST2.1 Essential Skills in Cardiothoracic Surgery	Nottingham City Hospital	23rd – 24th September 2024
ST1 Phase 1: Introduction to Cardiothoracic Surgery Course	Ashorne Hill	15th November
ST4.1 Phase 2: Core Cardiac Surgery Course	Ashorne Hill	18th – 20th November
ST7.2 Phase 3: Leadership and Professionalism Course	Ashorne Hill	28th – 29th November

Adult Cardiac Sub-Committee Report

Manoj Kuduvalli, SCTS Adult Cardiac Surgery Co-Chair, Consultant Cardiac Surgeon, Liverpool Heart and Chest Hospital

Adult cardiac surgery backlog

There are significantly long waiting times in several units in the country and recovery to 2019-20 levels of activity is variable. The impact of higher number of patients coming through urgent ACS pathways is being felt by several units, thus having a negative impact on improving waiting times on the elective pathways.

As mentioned in previous reports, the ACSSC engaged with the Cardiac Surgery Think Tank organised by NHSE through the National Clinical Director for Heart Disease and Chair, Cardiac Services CRG. There were a series of meetings which helped co-produce recommendations aimed at dealing with the backlog for elective cardiac surgery. These were published in April 2024 and will be disseminated by NHSE to provider organisations through their normal channels.

> **"A series of meetings helped co-produce recommendations aimed at dealing with the backlog for elective cardiac surgery."**

Cardiac Surgery Service Specifications

The ACSSC were engaged with NHSE in providing opinions and making amendments to the revised Cardiac Surgery Service Specifications.

Antibiotic prophylaxis for dental procedures – NICE Guidance

There is a potential for reviewing the NICE guidelines on antibiotic prophylaxis for dental procedures. The previous guidelines from 2008 was based exclusively on RCT data (which was sparse) and hence the recommendations resulted in an 89% reduction in the prescription of antibiotic prophylaxis for dental procedures. This was associated with a significant increase in the incidence of infective endocarditis.

A further review in 2015 did not result in a change for the same reasons. Since that time, much new evidence has accrued to confirm the link between invasive dental procedures and IE, and demonstrate the efficacy, safety and cost-effectiveness of AP in reducing the risk of IE following invasive dental procedures (particularly extractions and oral surgery) in those at high risk. There is a move led by cardiologists and dentistry to seek a further review of evidence. SCTS support was sought and provided for this proposal.

Update on projects

- Progress has been made in drafting a guidance document on sAVR / TAVI to support the membership in MDM discussions, with Mr Reuben Jeganathan and Mr Giovanni Mariscalco contributing towards this.
- The draft guidance document on Adult Mitral Valve Disease and Interventions is nearing finalisation with major contribution from Mr Hunaid Vohra.
- Mr Hari Doshi and Mr George Krasopoulos have put together a draft document on guidance on the provision of post-Cardiotomy ECMO.
- Similar to the request to other specialty sub-committees, the ACSSC was tasked with producing a template job plan for adult cardiac surgery based on RCSE guidelines (which are generic for all surgical specialties). Mr Hari Doshi has taken on this task and a draft job plan is now near complete and awaiting review at the next ACSSC meeting.

The ACSSC is grateful to all these colleagues who have devoted time to these tasks in spite of their already busy professional schedules.

Appointment of Deputy Co-Chair for the ACSSC

A decision was made at the March 2024 ACSSC meeting to appoint a Deputy Co-Chair for the ACSSC. Through a formal interview process after seeking expressions of interest, the committee is pleased to have appointed of Mr Harikrishna Doshi, Consultant Cardiac and Transplant Surgeon at the Golden Jubilee National Hospital, Glasgow, to this position. We wish him the best and look forward to working with him.

ACSSC Meetings March 2024 and May 2024

The Sub-Committee met at the SCTS meeting and again on 28th May on MS Teams. Topics of discussion included progress and next steps on the various projects listed above.

The prospects of adding further postoperative morbidity metrics to the SCTS cardiac surgery database and dashboard was discussed. The discussions will be fed back to the Audit Sub-committee. ■

Thoracic Surgery Sub-Committee Report

Karen Redmond, SCTS Thoracic Surgery Co-Chair, Consultant Thoracic & Lung Transplant Surgeon, Mater Misericordiae University Hospital, Dublin

Thank you to the 24 members of the subcommittee for contributing, it has been a challenging yet rewarding first year for me as co-chair. I would also like to welcome Rory Beattie who has joined Rana and I as deputy co-chair. The ToR document has been revised in an endeavour to support the extent of work and innovation being undertaken across the specialty. There are a number of projects being put in place for the next 12 months.

After a very successful SCTS ACTACC joint meeting at the Royal Society of Medicine, this meeting will run bi-annually scheduled for November 2025. And the best of luck to my colleagues in Scotland with their application to host the European Society of Thoracic Surgery Annual Meeting in 2027/28.

It is important that the SCTS is involved with NICE in revisions **https://www.nice.org.uk/guidance/indevelopment/gid-ta11289** with so many changes occurring in the field of lung cancer surgery. Recently, the JCOG0802/WJOG4607L and CALGB140503 (Alliance) non-inferiority randomized trials demonstrated that sublobar resection (anatomical segmentectomy only in the former, both anatomical segmentectomy and wedge resection in the latter) can offer comparable long-term survival and improved respiratory function preservation than lobectomy in patients treated for tumours smaller than 2 cm (T1a and T1b). The rate of robotic minimally invasive sublobar resections had already increased from 7.3% (2015) to 22% (2018)! It is inevitable that the medical oncologist will soon become the first port of call, with the phase 2 NeoCOAST-2 study (NCT05061550) currently evaluating multiple neoadjuvant IO+IO+CT combinations in patients with resectable early stage non-small cell lung cancer. We as a society need to agree on position statements to guide our membership not just on lung cancer surgery but innovative supports such as 3D CT reconstruction, navigational bronch., robotic bronch., iVATS, robotic platforms etc. So there is still a lot of work to be done!

The SCTS-approved GIRFT Pathways for pneumothorax and airway conditions are published **https://scts.org/news/621/acute_care_pathways_for_pneumothorax_and_acute_airways_surgery/**. GIRFT are also happy to support our proposal for a third joint SCTS/GIRFT acute care pathway, this time for pleural sepsis surgery.

I am keen we update the Model Job Plan for thoracic surgery to incorporate evolving subspecialty skillsets. We are also attending stakeholder taskforce meetings; there is a noted gap in the number of trainees wishing to pursue thoracic surgery as compared to the number of projected consultant posts. The projected shortfall is thought to be underestimated but is in the region of 25-50 posts over 5-10 years.

The pectus working group to support pectus care has been exceptionally productive thanks to experts in the field. The SCTS Website 'Pectus and Me' is up and running, alongside the charity 'Pectus Matters'. Aman as NHSE commissioning lead has worked with SCTS and BAPS to finesse a Pectus Care Service Standard Document. Commissioning of St. Bart's Surgery Unit by NHSE occurred, with a National MDT followed by South Tees and Alder Hey Units. Regional sites are able to offer non-surgical care including bracing and VB therapy. The RESTORE NIHR-funded Trial has had ethics approval with recruitment due to start from up to 12 sites in July 2024. Joel Dunning also led on the Joint Societies Best Practice Guidelines For The Treatment Of Patients With Pectus Abnormalities that has been accepted and after amendments submitted for publication.

We have just established two more working groups. Babu Naidu is chairing a working group to set up a Priority Setting Partnership PSP for Thoracic Surgery, possibly linked to the James Lind Alliance, a non-profit initiative that brings patients, carers and clinicians together to prioritise research questions within the field of thoracic surgery. This will help the SCTS to identify key areas of interest in the field and establish the supports and funding stream required. Kandadai Rammohan is chairing a working group to define a robust dataset acceptable to all UK and Irish thoracic surgical units. The aspiration is for a SCTS-mandated central database with an agreed dataset to which all units contribute validated data and with dedicated administrative support. Funding of these two initiatives is actively being sought so any contributions will be gratefully received!

Doug West as former NCIP representative is feeding back SCTS concerns regarding their outlier analysis proposal. A meeting with executive members agreed that individual surgeon outcome outlier analysis based on non-risk adjusted unvalidated HES data was inappropriate and detrimental to patient care.

The landscape for the specialty is forever changing and it can be hard to keep up. We acknowledge all contributions from the membership and look forward to collaborating in the years to come. ■

Communications Committee Report

Sri Rathinam, SCTS Communication Secretary,
Consultant Thoracic Surgeon, Glenfield Hospital, Leicester

The communications committee has made significant strides since the last Bulletin. We thank the admin team, Emma, Maika, Tilly, Taet and Mara for their hard work in delivering our various projects. It would not be possible without our committee members who give their valuable time.

Bulletin

Dionisios Stavroulias, Consultant Thoracic Surgeon in Oxford has been appointed as the new *Bulletin* Editor and he has offered you the first Bulletin under his stewardship.

The Bulletin publishing contract has been extended for another two years with Open Box Media, with SCTS paying for service and raising advertisement revenue; this arrangement has generated revenue for SCTS. The committee has also decided on an opt-in option to receive printed copies.

From the Chest

Four issues planned in 2024 and we encourage members to send us their stories.

Website

We are in the process of updating the patient information leaflet for the various cardiac and thoracic conditions and the leadership of our various colleagues within the committee. WiCTS content has been updated as per the WiCTS Chair. The member wellbeing section is in progress with external free resources sought. The planned section on surgical site infection reduction is underway.

Executive report

The executive report of the activities of the SCTS committees will have reached you by now, we thank all the committee chairs and members for their hard work.

BORS Report and Unit Engagement

We will commence Unit engagements from July to gain insight from various units and to the challenges and how SCTS can help and support them. BORS reports request were sent in June.

SCTS Education: 10 year journey Book

The book section editors will be past Presidents and chapter authors have been finalised, communications have commenced and we plan to bring the book out for the BORS 2024 meeting.

Ionescu Living Text Book

The evaluation of content and cataloguing is in progress by the section leads, in what is an enormous resource with more than 700 videos in them.

Social Media

We have a pool of keen members within the communications committee, who will be the SCTS Ambassadors in social media increasing our web presence. We request members to tag SCTS in your social media posts.

Collaboration with other Organisations

The SCTS is supporting the **Egyptian Society for Cardiothoracic Surgery** Meeting in November 2024 with speakers and scientific content. We are also supporting the **Indian Association of Cardiothoracic Surgeons**' 70th Annual Meeting to be held in February 2025 with plans to continue in the next few years. IACTS requests targeted training fellowships one in cardiac and thoracic and one in transplant.

SCTS Abstracts and Perspectives

SCTS annual meeting abstracts are published in JTCS. There are discussions with the meetings team to choose talks from SCTS University for prospective Perspectives Monologue in JTCS. ■

Congenital Sub-Committee Report

**Andrew Parry, SCTS Congenital Cardiac Surgery Co-Chair,
Consultant Congenital Cardiac Surgeon, Bristol Royal Hospital for Children**

Structured differently from the other sub-speciality sub-committees due to the small number of centres in the country, the congenital sub-committee comprises one member from each centre with specific co-opted members who have specific portfolios (e.g. education, audit).

The work of the group has focused on four major issues;

1) Winter planning/waiting lists

2) Homografts and other prosthesis issues

3) FRCS part 3 examination

4) Work force challenges/Education

1) Since even before the effects of the COVID pandemic congenital surgeons had continuous/daily struggles accessing PICU resources to allow provision of an efficient and adequate cardiac surgical programme throughout the country. Whilst there are some local variances, every unit which did not have a 'stand alone' cardiac PICU reported difficulties with access to PICU beds. Although this has always been an anticipated challenge over the winter months, more and more we have been unable to make up ground during the summer with an inevitable increase in waiting lists. The group is continuing to work with the British Congenital Cardiac Association to challenge NHSE to resolve the situation and work with us to develop a robust solution to this ongoing issue.

2) Over recent years there has been a steady decrease in the availability of homografts for use in the UK. Though there are multiple reasons for this, part of the reason is that NHSBT has taken over the responsibility for (allocating) the harvesting of all donor organs/valves. This has led to challenges for the individual valve banks remaining viable and some concern that useful valves are not being harvested as efficiently as they could be. As congenital surgeons are the largest users of homografts, we have been leading the discussions and the group has been working with NHSBT in a number of ways to increase the availability of grafts by;

- teaching harvesting surgeons how to maximise the availability of useful tissue from each donor
- expanding the donor criteria through discussion with the other valve banks
- working with the other valve banks to increase approaches to potential donors
- increasing transparency of data of rejected grafts/unfulfilled requests

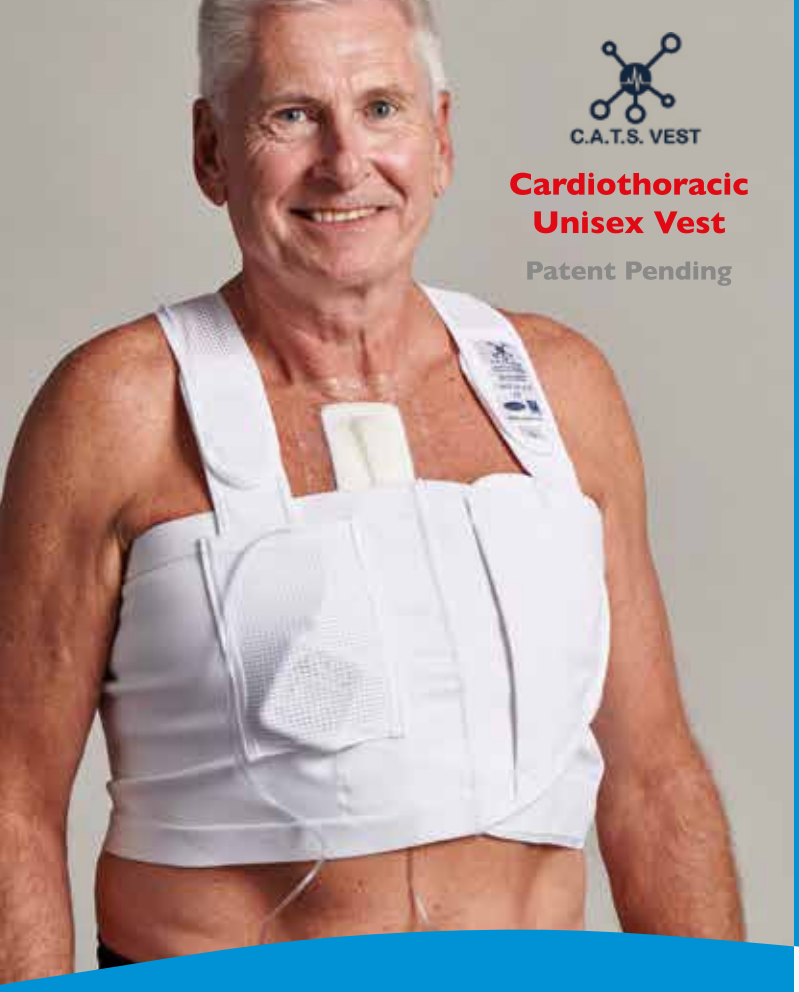
3) It has been felt by members of the sub-committee that congenital cardiac surgeons are exposed by having their final validation exam only in the generality of cardiothoracic surgery, with no meaningful examination in congenital cardiac surgery. Consequently, we are exploring the development of a congenital focus element of the part 3 examination which can be sat as part of the cardiac speciality element of the exam. Approach has been made to the GMC to agree this proposal, as there is already a specific congenital syllabus.

4) The greatest challenge in congenital cardiac surgery is retainment of consultant surgeons. Over the last eight years 60% of the consultant workforce has been lost predominantly through two routes, moving abroad and retirement. This has led to serious challenges in the continued provision of an excellent national service as the surgeons leaving are mainly the experienced ones leading to not only a challenge with numbers but a greater challenge with retaining expertise.

The issue can be tackled in a couple of ways, specifically reducing the loss or increasing the inflow and the education committee has been doing sterling work in exciting the new recruits to cardiothoracic surgery in the opportunities of congenital cardiac surgery; we are seeing a cohort, small but immensely committed and motivated, coming through the ranks at the current time. However, this does not address the immediate problem of retaining experienced surgeons.

The reasons for leaving the country are multiple and are the same as recited in the recent GMC manuscript on the subject, yet because of the small number of surgeons in the country we are very exposed. Finding solutions is complex and the work is at an early stage. Currently we are working with the congenital cardiac CRG and British Congenital Cardiac Association to address the issues identified as precipitants for this loss of surgeons but little progress as of yet.

I would like to thank all the members of the sub-committee for their time and efforts in making this a group that reasonably and fairly expresses the opinions of the congenital cardiac surgeons in the count. ■



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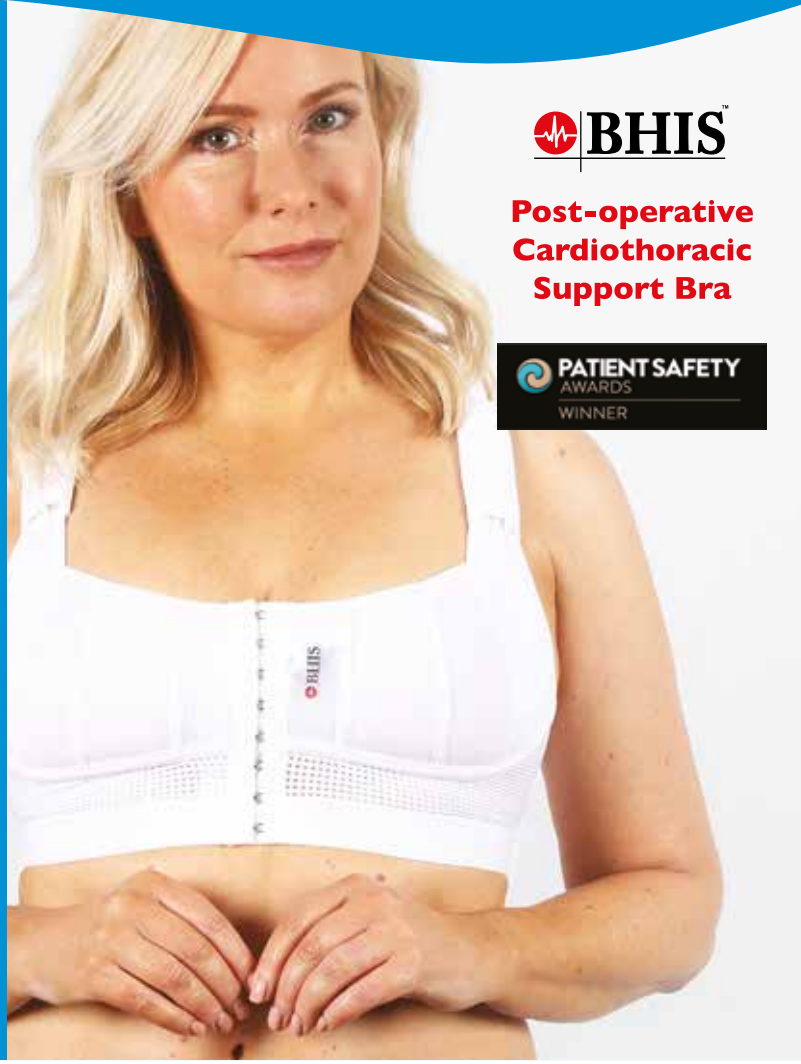

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Equality, Diversity, and Inclusion Sub-Committee Report

Indu Deglurkar, SCTS Equality, Diversity & Inclusion Co-Chair, Consultant Cardiothoracic Surgeon, University Hospital of Wales

Narain Moorjani, SCTS Equality, Diversity & Inclusion Co-Chair, SCTS President, Consultant Cardiac Surgeon, Royal Papworth Hospital, Cambridge

The SCTS Equality, Diversity, and Inclusion (ED&I) Sub-Committee strives to foster an inclusive culture within the multidisciplinary environment of cardiothoracic surgery. The first ever UK wide survey was published by the sub-committee in January 2022 with a 31.9% response rate. The SCTS is actively seeking ways to address the issues raised in the initial ED&I survey regarding shared experiences of prejudice, recruitment, retention, education, mentorship, leadership, professional support and policy changes.

"The SCTS is actively seeking ways to address the issues raised in the initial Equality, Diversity, and Inclusion survey regarding shared experiences of prejudice, recruitment, retention, education, mentorship, leadership, professional support and policy changes."

Ongoing projects/priorities

ED&I Video:

Over the past year, the ED&I committee has dedicated significant resources to creating an interview-style video featuring cardiothoracic surgeons and allied health professionals. These interviews aim to offer valuable insights into the field of cardiothoracic surgery.

It is targeted at young audiences, including GCSE/A-Level/junior medical students; the video will be distributed through schools and social media platforms. Its overarching purpose is to serve as a beacon of representation for all young individuals, showcasing cardiothoracic surgery as an inclusive speciality with diverse voices and perspectives. The video seeks to demonstrate this field's inclusive culture and possibilities through candid discussions of personal anecdotes and visions for the future.

Our plan involves creating a main video with a runtime of approximately six minutes, supplemented by two shorter 60-second clips optimised for dissemination across platforms like Instagram and Facebook. These shorter clips are strategically designed to capture the attention of younger audiences and facilitate easy discovery while navigating social media feeds.

The aim is to complete the EDI video for distribution by the end of 2024 empowering and informing the next generation of medical professionals about the dynamic and inclusive world of cardiothoracic surgery.

New and developing projects

Surgical ED&I Awareness Day:

The ED&I committee is committed to spearheading initiatives to raise awareness about diversity and culture within the field of surgery. We aspire to actively participate in and contribute to professional events focused on these critical topics. We aim to foster meaningful connections and enhance ongoing efforts to promote diversity and inclusion within cardiothoracic-specific and pan-surgical practice. In pursuit of this goal, the committee seeks to collaborate with professional organisations such as the Royal Colleges of Surgeons, the British Association of Black Surgeons, and the British Association of Physicians of Indian Origin. We aim to amplify our collective impact by producing these partnerships and effect positive change within the surgical community. In collaboration with such organisations, we plan to organise an event addressing ED&I and culture within surgery, addressing all forms of prejudice not specific to any particular minority or group. We want to ensure that every voice is heard and valued in surgery.

There are several really challenging issues that need to be addressed with a multi-dimensional approach in matters related to Training of Trust Appointed Doctors, gathering data to address systemic issues to foster a safe and inclusive environment. The ED&I committee continues to strive and work through these challenging objectives with the support of the membership. ■

Intercollegiate Specialty Board in Cardiothoracic Surgery

Sri Rathinam, Chair, Intercollegiate Specialty Board for Cardiothoracic Surgery JCIE, Consultant Thoracic Surgeon, Glenfield Hospital, Leicester

The exam board membership is complete with representatives from all stake holders.

Mr Sridhar Rathinam	Chair
Miss Juliet King	Leader, Panel of Question Writers [S2]
Miss Elizabeth Belcher	Leader, Panel of Question Writers [S1]
Mr Rana Sayeed	JSCFE Lead
Mr Steven Rooney	RCSEd
Professor Farah Bhatti	RCSEng
Mr Vincent Young	RCSI
Mr Manoj Kuduvalli	RCPSGlas
Mr Tim Jones	SAC Chair
Mr Neil Roberts	SCTS
Mr Narain Moorjani	SCTS
Ms Rebecca Weedle	Trainee Representative
Mrs Claire-Digance Fisher	Specialty Manager

Panel of examiners

There was an exodus of senior examiners who had completed their terms and a big recruitment drive has increased the examiner pool with more thoracic examiners, female examiners and examiners from all four nations and Republic of Ireland. Special efforts have been made to recruit more female examiners to reflect our trainees. Our female examiner numbers have increased from one (2%) to six (10%) and male examiners from 42 to 50 when comparing the cohort from 2015 to 2024.

Standard setting and Question writing

The examiner role not only includes examining it also includes standard setting process and question writing; a big thank you to all the examiners who give away their valuable time in making this happen. It is the examiner pool who ensures the standard of the exam. A big thank you to Elizabeth Belcher and Juliet King who lead on the question wring groups and Mark Jones who supports Juliet with the cardiac questions.

> "We welcome experienced surgeons and trainers who have completed 5 years of substantive posts and are in good standing to consider joining the court of examiners."

New format examinations

We have recently conducted the 4th diet of the new format examinations with patient volunteers and sub specialty vivas in Liverpool . The host examiners Mr Norman Briffa, Prof Mahmoud Loubani, Mr Manoj Kuduvalli and Mr Steve Woolley delivered the local patient volunteers, support team and instruments;
A big thank you to all of them.

JSCFE

The JCIE is exploring options regarding the future of the JSCFE examinations with various options explored to support the candidates. Candidates who have passed the section 1 of JSCFE can now appear for the JCIE exam if they have worked in the UK or Ireland for one year. The venue of the exam has been changed from Malta to Dubai for the next diet.

Examiner leave

There is variation between regions with regards examiner leave and time away. A letter has been sent from Mike Lewis the chair of the JCIE with an accompanying letter from the CMO and Surgical College Presidents emphasising the importance of training and assessment.

Future exams

The next diet of the Section two will be held in Belfast in October 2024, Blackpool in May 2025, Stoke on Trent in October 2025 and London in May 2026.

New examiners

We welcome experienced surgeons and trainers who have completed five years of substantive posts and are in good standing to consider joining the court of examiners. There will be a lead time of 12-24 months before you will examine as your application will be assessed by the board. You will then be invited to the examiner training following which you will observe an exam before formally examining in a diet. ■

Trainee Report

Bassem Gadallah, ST6 Northwest Deanary, Wythenshawe Hospital, Manchester
Walid Mohamed, Cardiac Surgery Registrar (StR), University Hospital Southampton

The SCTS Annual Trainee Meeting

We were delighted to once again hold our annual trainee meeting at this year's SCTS Annual Meeting at the ICC Wales. This year's meeting was attended by NTNs, TPDs and several members of the SCTS SAC, with several informative talks and discussions on training-related matters. The programme included updates from the ISCP, eLogbook and QA leads, experiences shared from NTNs and recently appointed consultants of their fellowships abroad and an academic session sharing an update on national projects and research opportunities for NTNs. We are pleased to have been able to share the presentations included in the meeting with all NTNs for future reference, and will endeavour to do this in future as a reference and particularly for those who are not able to attend.

We look forward to seeing you all at next year's meeting that will be held on Sunday, 16th March 2025 at the SCTS Annual Meeting in Edinburgh.

The SCTS Annual Trainer Awards

This year we received a record number of nominations for cardiac consultant, thoracic consultant and NTN trainers, with inspiring statements that are a testament to the hard work and commitment to training that is still prevalent in our specialty.

We were very pleased to announce the 2024 award winners/runners-up at the ceremony:

- **Golden Lungs Award Winner: Mr Michael Shackloth**
- Golden Lungs Award Runner-Up: Mr Nikos Kostoulas
- Golden Lungs Award Runner-Up: Mr Nathan Burnside
- **Golden Heart Award Winner: Mr Shyamsunder Krishna Kolvekar**
- **Honorary Golden Heart Award Winner: Mr Mubarak Chaudhry**
- Golden Heart Award Runner-Up: Mr Kasra Shaikhrezai
- Golden Heart Award Runner-Up: Ms Betsy Evans
- **Golden Sternum Award Winner: Mr Sanjeet Singh**

Golden Lungs Award Winner Mr Michael Shackloth (left) with Bassem Gadallah

Nominations will open in early 2025 for next year's awards, so please keep an eye out for the announcement via WhatsApp and SCTS communication channels.

The SCTS Annual Trainee Dinner

This year marked another fantastic trainee dinner, fully funded by our long-term sponsors AtriCure, with over 60 NTNs attending and socialising in a lovely atmosphere.

We are planning next year's event on the first day of the SCTS Annual Meeting 2025 and will announce the venue later on in the year. We look forward to seeing all NTNs there for a very fun night in Edinburgh!

SHO/SpR Guide Template

The National Trainee Committee for Cardiothoracic Surgery (NTCCTS) is working to develop a template that we hope all cardiac and thoracic departments could use to publish an SHO/SpR guide for their NTN/trust-grade doctors. This template would include detailed information on the department structure and contacts, rota pattern and a description of shifts, induction and systems access guidance, leave requests and sickness reporting, basic clinical scenarios and advice on managing certain emergency situations, amongst other topics.

We appreciate starting in a new department can sometimes take time to get used to, which is a common issue in rotational training, and having clear and standardised guidance in any department can help support trainees and ease this transition. We hope to liaise with TPDs and unit representative once this template is published to ultimately have a guide for every cardiac and thoracic unit in the UK and Ireland.

NTCCTS Vacancies

We are delighted to announce we are recruiting for several NTCCTS vacancies. The full list of vacancies will be shared very soon through the WhatsApp NTN groups and SCTS communication channels. Please keep an eye out for these vacancies and consider applying. The committee has been active for a few years and we have been working on standardising the role descriptions and terms. We welcome enthusiastic applicants to join our team to help represent NTNs to the highest standard.

The NTC is working on other projects to bring exciting opportunities to trainees, including fellowship grants and exploring recommendations and action plans to maximise theatre opportunities. We regularly ask for feedback on the NTN WhatsApp groups, particularly before any SAC or Executive Committee meeting, and are always keen to hear from all trainees about any training-related matters (that can then be discussed at the relevant SCTS committee) or any ideas or suggestions for projects to improve training. Please get in touch via WhatsApp or email **ntccts@gmail.com**. ■

SCTS Transplant Education Lead Report

Espeed Khoshbin, SCTS Transplant Lead, Consultant in Cardiac Surgery Transplantation and Mechanical Circulatory Support, Harefield Hospital, Middlesex

The Welsh venue for the SCTS University and meeting was a stunning location for our annual gathering. The transplant section of the SCTS University and the annual meeting was well attended with presenters from Europe and Australia.

SCTS transplant university

The theme of this year's transplant university was acute mechanical circulatory support for cardiac surgeons. The session was chaired by Professor Stephan Schueler, an internationally recognised figure in transplantation and mechanical circulatory support (MCS). There were presentations by interventional cardiologists, cardiac surgeons, and cardiothoracic transplant surgeons. The use of Impella devices were discussed as an adjunct in high-risk coronary catheter based / surgical interventions and as a strategy for management of post cardiotomy syndrome.

SCTS transplant annual meeting

There were record numbers of transplant and MCS related abstracts submitted to the annual meeting. Presentations from junior trainees as well as nursing and allied health professionals were amongst oral and poster sessions.

SCTS transplant award

The transplant nurses and allied health professionals (NAHP) at Harefield Hospital received the SCTS award for the Best Transplant NAHP Team of 2023.

The advanced heart failure scholarship

The first advanced heart failure scholarship program started this January. The scholarship accepted both physicians and surgeons. There were nine free scholarship spaces. The programme consisted of pre-recorded lectures from leaders in the field of heart failure and transplantation. The attendees will have the opportunity to attend a four-week planned visiting scholarship to the transplant unit at Harefield Hospital, London.

Transplant courses

There are several transplant courses available throughout the country such as the EACTS fresh cadaveric course for advanced transplant surgical training held at Freeman Hospital and Papworth retrieval training course, Cambridge. SCTS continues to endorse Harefield's Core Thoracic Organ Transplantation Course. Following its success last year, this year the course will be over two days and will carry 10 CPD points. The course is aimed at medical students, foundation doctors, core trainees, speciality/trust grade trainees, transplant fellows, organ donor practitioners, transplant nurses, surgical care practitioners, theatre nurses, operating department practitioners, physiotherapists, and others. The course is integrated as part of an Intercalated BSc programme at Imperial College, London. The course is face-to-face and free for SCTS members. The speakers include Professor Sir Magdi Yacoub and Professor Asghar Khaghani both legends in cardiothoracic transplantation. The programme will consist of lectures and wet labs conducted by local, national, and international speakers. The lectures will be broadcasted live to other international institutions.

The transplant nurses and allied health professionals (NAHP) at Harefield Hospital received the SCTS award for the Best Transplant NAHP Team of 2023

What's next

Transplantation and mechanical circulatory support are part of the training curriculum and examined at FRCS (CTh) level. Following the publication of the national survey of peri-CCT transplant fellowship program, efforts have been made to standardise transplant training in the UK. UK is currently the leading country in transplant education and the only country that has a system in place to train transplant surgeons. To make a career path in transplantation more attractive to our trainees we have taken note of our national survey and considering improving this training within the London Deanery. Professor Prakash Punjabi, London deaneries training programme director has expressed his interest in a program, where we would offer attachments to London trainees to develop their career in transplantation and mechanical circulatory support at Royal Brompton and Harefield Hospitals. ■

Updates from the INSINC Student Committee

Heen Shamaz, SCTS INSINC Lead
Emma McEwen, SCTS INSINC Events Lead
Jason Ali, SCTS Student Education Lead, Locum Consultant Cardiothoracic Surgeon, Royal Papworth Hospital, Cambridge

The INSINC Student committee bids farewell to Prof Farah Bhatti after three fantastic years, we are eternally grateful for all her contributions and wish her all the best in her future endeavours. We are excited to welcome Mr Jason Ali as our new Consultant Lead and look forward to working together on our upcoming projects.

Following the success of the Student Engagement Day in Oxford and Annual Student Day in Newport, the committee has been busy working on new initiatives as the next academic year rolls in. We are pleased to see our student community continue to grow throughout the UK and Ireland, and hope to further increase engagement from our future surgeons! More details on our ongoing work can be found on the SCTS website as well as our social media platforms – **@sctsinsinc**.

Oxford Student Engagement Day 2023

This year's hosting bid was won by Oxford University's Trinity College. Centred around the theme of 'widening participation in cardiothoracic surgery', the event showcased amazing talks and workshops to give students a taster into cardiothoracic surgery.

Highlights included a special talk from Prof Stephen Westaby on his captivating journey, which left us inspired to build our own stories. Other key speakers included, Mr Rana Sayeed, Miss Elizabeth Belcher and Mr Jean-Luc Duval who provided useful insight to the different areas of cardiothoracics as well as how we as students can create meaningful portfolios. Our sponsors, Ethicon and Medtronic, allowed for the vital hands-on aspect of the day with workshops in surgical and laparoscopic skills. It is clear that we have a talented generation of incoming surgeons!

SCTS 2024 Annual Medical Student Day

Our much anticipated Annual Student Day returned on Sunday 17th March at the SCTS Annual Meeting 2024 in Newport. The day started with talks from Mr Narain Moorjani, Mr Joel Dunning, Ms Deborah Harrington, and Ms Fran Gatta, who provided inspiring perspectives to the medical students. The Pat Magee Research session showcased the brilliant work our community of students is achieving. In collaboration with the NAHP team, we joined the wet lab session which was buzzing with excitement and hands-on exploration. Ms Georgia Layton held a cardiac case-based discussion which sparked great discussion from our budding surgeons! The inaugural panel discussion, with Mr Jason Ali, Miss Elizabeth Belcher, Mr Aman Coonar and Ms Georgia Layton, emphasised important themes around 'the person behind the surgeon'. We enjoyed hearing from the surgeons on a personal level as they shared their experiences of training whilst bringing up families. We are incredibly proud of their work and appreciate their openness in supporting the next generation. The day ended with a light-hearted quiz with questions ranging from the history of SCTS to present day surgical procedures. All in all, our day drew in over 50 medical students who we hope left feeling inspired to continue pursuing their passions in cardiothoracic surgery.

INSIGHT programme

In early March, we hosted a week-long series of interactive sessions to introduce cardiothoracic surgery to sixth formers and medical students. The programme kicked off with an overview of the pathway from medical student to consultant. Participants learned about cardiac, thoracic, and transplant surgery, and enjoyed an interactive anatomy demonstration. The sessions were well received, and we would like to thank the speakers for their time and enthusiasm.

The second part to this programme consists of work experience in cardiothoracic units across the UK, open to widening participation students. Sixth formers have already enjoyed the placements in March in Bristol – Bristol Royal Infirmary and Leicester – Glenfield Hospital. Following continued success, we are excited to be expanding to two new centres, Edinburgh – Edinburgh Royal Infirmary and Cambridge – The Royal Papworth Hospital, who will be hosting work experience in the summer holidays.

Regional leads initiative

Our regional leads initiative has successfully recruited medical students to represent INSINC at over half of the medical schools across the UK and Ireland. The scheme aims to collaborate with local students to promote INSINC activities and encourage engagement on social media. It also offers regional leads opportunities to build leadership and teamwork skills as well as network with the INSINC committee.

We are now recruiting regional leads for the 2024/25 academic year! Applications closed on 1st August 2024.

Cardiothoracic surgery training pathway teaching series

Throughout this academic year, INSINC has hosted a series of talks to demystify the training pathway in cardiothoracic surgery. These sessions aimed to help students and junior doctors better understand the steps to becoming a cardiothoracic surgeon. Over five sessions, various speakers covered topics including developing a competitive application, an overview of the training pathway, and alternative pathways into the field. With over 100 attendees attending the sessions, feedback has been greatly received.

Mentorship scheme

Our mentorship scheme connects like-minded students and trainees, creating a supportive environment to nurture their enthusiasm for cardiothoracic surgery. We have received over 60 applications for the upcoming academic year and are now in the process of matching mentees with mentors. The programme will include virtual meetings between mentors and mentees, as well as a networking lunch for participants to meet in person at the SCTS Annual Meeting 2025. We look forward to seeing the progress and growth of our students and trainees.

Upcoming projects

We have many ongoing and future initiatives happening this year! Key upcoming initiatives to keep a lookout for include:

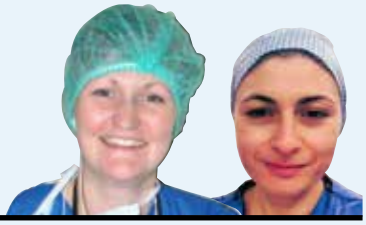
Website Revamp

We are super excited to announce that we are redoing our section of the SCTS website! We will be populating this section with new resources, including an elective repository, and up-to-date information of our initiatives to kick-start the next academic year. We encourage all medical students to take advantage of our free membership and stop by our website when it's done!

Student Engagement Day

Our 2024 Student Engagement Day will be held in Cambridge this year! Get ready for another day full of exciting speakers and interactive workshops! Keep a lookout on our socials for more details to follow! ■

Equality is Quality – Three years of a Women in Cardiothoracic Surgery Sub-Committee



Karen Booth, former SCTS Women in Cardiothoracic Surgery Co-Chair
Ralitsa Baranowski, SCTS Women in Cardiothoracic Surgery Co-Chair, Royal Victoria Hospital, Belfast

In 2021, some members asked 'what is the need for a Women in Cardiothoracic subcommittee?' It was a question I had asked at many points in my medical career. Never one for supporting women in surgery events before, a trainee with no breaks in training and appointed aged 33, I am not sure to be honest I ever saw the need myself. Don't we all want recognition for who we are as surgeons, not our gender? Quality isn't necessarily equality, or is this really the case? Yet there I was fully signed up to chair an inaugural sub-committee for SCTS. And so, you ask again, why?

The reality of a consultant position was that suddenly my eyes were open to the inequalities, the small micro-aggressions and the lack of respect from the multi-disciplinary team when suddenly I was not the work horse with the great communication skills, I was attempting to become the equal of others. A lone entity for the first time and no longer a novelty. It was the first time I felt truly isolated in my own department.

Approached by juniors at all stages in their careers, I was informed and asked advice on how to manage bullying, lack of training opportunities and sexual harassment. I became a beacon for advice for topics on which I sometimes had vast experience on or simply none. I stood out because I was a woman, whether I liked it or not.

WiCTS was not 'born' in 2021, consultants had been informally meeting for years, started by Professor Farah Bhatti, Ms Betsy Evans and Ms Deborah Harrington. I was invited to this social network of female cardiac surgeons at the end of my cardiac training. In 2021, we formalised our group,

WiCTS Plenary Session with Liz O'Riordan at SCTS Annual Meeting 2023

accepted that the SCTS executive felt they wanted to make diversity a priority under the leadership of Mr Narain Moorjni and so the Women in Cardiothoracic Surgery Network, subcommittee of SCTS was born.

The WiCTS subcommittee is made up of representatives from all backgrounds in specialty. We meet quarterly and work closely with the SCTS executive to achieve the goal of supported diversity locally and nationally in leadership positions. The team members include Ms Betsy Evans, Ms Carin Van-Doorn, Ms Elizabeth Belcher, Ms Cecilia Pompili, Ms Rashmi Yadav, Ms Debbie Harrington, Ms Michelle Lee, Ms Julie Sanders, Ms Melanie Jenkins and Ms Georgia Layton. We collect data on percentages of females in a chair or speaker position at the annual meeting and we also have yearly sponsored a WiCTS session highlighting the issues we feel our members face on the ground. We have enjoyed talks to date from Brigadier Nicky Moffat, Mr Alex Brunelli, Ms Tamzin Cuming and Liz O'Riordan and in November 2022 we enjoyed our first day conference, organised in partner with the Women in Caridiology (WIC) society.

The event was oversubscribed, free and included sessions on working whilst pregnant, returning to work after a period of absence, CEA awards and public speaking. It was a fantastic experience to see consultant and trainee members come together and socialise whilst being able to discuss somewhat taboo subjects, that are not yet mainstream at the annual meeting.


WiCTS Flamenco Event at SCTS Annual Meeting 2024

"We do this because diversity impacts patient care. SCTS is driven to continuously improve the quality of healthcare that our specialty delivers to patients in an open and accountable manner."

As a committee, we surveyed the ratio of female: male chair and invited speakers at the University Day on Sunday 8th May 2022 and then again in 2024.

In the 27 sessions offered at the University Day covering Transplant Surgery, Medical Student Engagement, Adult Cardiac, Thoracic Surgery and AHP's, 70 chair positions were offered with 23 female chairs (32.86%). 112 invited speakers during the sessions had 33 (29%) female members invited.

In cardiothoracic surgery at consultant appointments are significantly low in adult cardiac surgery (including transplantation) and congenital cardiac surgery, at 10.36% and 11.4% respectively. When I was first appointed chair in 2021 we had 45 consultant female surgeons and in the last 3 years we have seen another 14 appointments, a percentage increase across time of 3%.

Overall a total of 13.11% of all consultants in the UK are female.

The Bullying, Harassment and Undermining (BHU) Survey of 2022, supported by WiCTS, showed us that of the 278 responses (>75% doctors), 79% had experienced BHU, 60% directly themselves and with the majority reporting verbal or mental incidents, a significant number also reported physical and sexual harassment.

The recently constructed 'surviving in scrubs' recounts harrowing experiences of doctors at all levels and validated my consultant experience of what more junior staff members would reach out and tell me.

In response, we have produced the Gender Workforce Report and Sexual Harassment Support Guide for SCTS, published on **www.scts.org**, following on from the themes above, please take five mins to read them.

Many differing barriers exist to encouraging women into cardiothoracic Surgery; especially into cardiac sub-specialties. Many challenges traditionally thought to negatively impact women more than men, for example, child-care or unprofessional behaviours, are not unique to sex and are increasingly challenges faced by all. Regardless, we must acknowledge that there persist major barriers which disproportionately impact our female colleagues, such as gender bias, societal expectation, lack of representation of female role-models in a leadership position and the persevering 'club' culture of surgical environments. This gender imbalance is one SCTS are keen to make positive steps to address.

There is a 'glass ceiling' and it is great to reach out as I hand over my co-chair position of WiCTS to update you on all we have achieved in my tenure and to hand over the baton to Ms Ralitsa Baranowski, Consultant Thoracic surgeon in Belfast, Northern Ireland.

Patients must be able to observe a diverse work-force representing all genders, ethnicities and sexual orientation in the staff who treat them, to convey clearly that we as a specialty is open, without judgement, accountable and constantly striving for excellence. ■


SCTS Inaugural Women in Cardiology and Women in Cardiothoracic Surgery Day Conference November 2022 in Manchester

UK Aortic Society (UK-AS) gains charitable status

Karen Booth, UK-AS Secretary

The UK Aortic Society (@UK_Aorta on X) was established 12 years ago as an informal support group of interested and invested aortic surgeons, vascular surgeons, radiologists, patient advocate charity representatives and nursing allies. We have met annually at the Belfry, the first weekend in September every year since and the day conference, sponsored by our partners in industry, covers aortic education in showcasing repertoire from units throughout the UK and Ireland. It is in this setting that the NHSE Toolkit for Aortic Dissection Treatment was developed. The opportunity this affords for shared learning in an unformal setting is unparalleled at any educational meeting elsewhere. UK-AS also offers a 'WhatsApp' clinical support messaging group for aortic surgeons throughout the UK recognising that a wider support MDT is hugely beneficial in some cases.

This society has grown from an informal support network to being granted charitable status by the English charity commission on the 19th December 2023. Our registered charity number is 1206283. We work closely with ex SCTS President Mr Graham Cooper and the Aortic Dissection Charitable Trust (ADCT) as one of only a few professional societies that collaborates with the patients we serve to improve care through research, education and patient pathway's.

This article is a description of the work that we do, a call for new members and a recognition of what is achievable in Cardiothoracic surgery in the UK when we collaborate, come together and work as a 'wider team' whose vision it is to improve the care of patients with aortic disease throughout the UK and Ireland.

It may be that you have not heard of UK-AS or noted the contribution being made at the SCTS annual meeting in recent years so here is a description of who the UK-AS executive are, what we do and our vision for aortic surgery in the years to follow.

The executive committee has just called for a new executive team and we are happy to announce the following appointments –
Mr Michael Sabetai – Chair
Ms Karen Booth – Secretary
Mr Amit Modi – Treasurer
Mr Shakil Farid – Education Co-Lead
Mr Giovanni Mariscalco – Education Co-Lead
Mr Stuart Grant – Research Co-Lead
Mr Sanjay Asopa – Research Co-Lead

Community support and clinical queries facility

UK-AS is a charitable organisation established for ***the relief of sickness and the preservation of health among those suffering, or at risk of suffering from aortic disease by advancing the education of health care professionals in the diagnosis, treatment and surveillance of aortic disease.***

To this end the use of a WhatsApp group to be renamed 'UK-AS Clinical Support' is open to any registered doctor, nurse or allied health professional who wishes to join and enjoy educational content that is discussed and is completely free to use. Approval to join will be sought from the UK-AS admin team through email on **admin@uk-as.org** where professional body registration will be checked and verified. The use of this forum will be for discussing clinical care of patients and must be strictly anonymised by the uploading practitioner.

UK-AS Executive Committee (L-R): Manoj Kuduvalli – Chair (2021-2024); Karen Booth – Secretary (2021-2027); Sunil Bhudia – Treasurer (2021-2024); Michael Sabetai – Education Lead (2021-2024); Stefano Forlani – Research Lead (2021-2024); Giovanni Mariscalco – Research Lead (2021-2024); Amit Modi – Education Lead (2021-2024)

Executive 'Workstreams'

Database working group

A subset of the UK-AS membership have been meeting quarterly to pursue a UK aortic database through NICOR. As a result, it is likely that a new aortic section will be added to the NICOR database which collects patient data from all units throughout the UK and Ireland. This will allow for more accurate recording of accuracy of procedures performed and where, improving research and education as we head in 2024.

Research and publication's stream of UK-AS

In the last 12 months UK-AS have contributed four publications to the work of aortic surgery in partnership with Aortic Dissection Charitable Trust (ADCT) with ongoing Research Projects in FET and UK-AS Current Service Specification Survey.

Education Provision to SCTS and Surgeon's in training

UK-AS have organised the Aortic Surgery SCTS University Day and contributed to lunchbox sessions and abstract review for >3 years at the annual general meeting. This year in addition, we are about to launch our first education series aimed at trainees and SAS doctors in the UK and Ireland looking to prepare for their FRCS examination. We will run a monthly webinar programme covering topics such as the principal of aortic dissection surgery and cannulation strategy, treatment of TBAAD and hear from experts in the field of aortic surgery on their tips and tricks.

Thank you to our membership

It has been a busy twelve years in collaborating to improve the care of aortic patients in the UK and we are celebrating the work we have achieved and looking forward to the work to come. Thank you to all our members who continue to contribute to our success. The future of aortic surgery in the UK is going from strength to strength and if you want to find out more, please visit our website at **www.uk-as.org**. ■

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Legal Classification: Pharmacy (P)

Date of last revision: 24/01/2023

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Date of preparation: January 2024

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Reference
https://www.medicines.org.uk/emc/product/14509/smpc/print

The development and testing of an Equality, Diversity and Inclusion (EDI) checklist for cardiovascular trials

Hardeep Aujla, Senior Research Manager, University of Leicester
Ann Cheng, Clinical Research Fellow, University of Leicester and Cardiothoracic Surgery NTN (OOP-R)
Sarah Murray, Chairperson of National Cardiac Surgery PPI Group
Sue Page, PA to Prof Gavin Murphy, University of Leicester
Maria Pufulete, Associate Professor of Applied Health Research, University of Bristol
Prof Gavin Murphy, BHF Chair of Cardiac Surgery, University of Leicester

Many cardiovascular trials do not reflect the diversity of the population with cardiovascular disease. They often can only recruit a lower proportion of older people, women, people from ethnic minorities and those of lower socioeconomic status, as well as other under-served groups. Therefore, the results of the research are not applicable to all who may benefit from an intervention.

Inclusive research has become a priority for funders and organisations that conduct research to promote health equity and reduce inequalities. The National Institute for Health Research NIHR-INCLUDE Framework and Guidance1, 2 identified activities and trial design features to facilitate the recruitment of under-served groups, but these were generic and not cardiovascular specific and their implementation has not been tested.

We will draw on the NIHR Include Framework to develop and test a cardiovascular disease specific Equality, Diversity and Inclusion (EDI) checklist to increase recruitment and retention of underserved groups in cardiovascular trials.

Proposed Research

1. **Scoping review** of recruitment strategies to increase recruitment of people from under-served groups in clinical trials. We hope the review will identify which strategies are effective and for whom. We will produce an evidence map of these strategies and highlight what uncertainties remain.

2. **Map current practice** with a UK-wide survey of Clinical Trial Units. We will aim to identify current inclusivity practice with regards to clinical trial design, conduct and reporting, explore barriers and facilitators when applying inclusivity strategies, and assess effectiveness.

3. **Stakeholder workshop** including patient groups, cardiovascular researchers, trialists, healthcare professionals, recruiters and data collectors to formulate domains for an initial checklist using the evidence from the scoping review and survey and expert opinion. These domains will span the entire research pathway, including trial design considerations, strategies for recruitment, retention, data collection, and outcome reporting.

4. **Delphi consensus process** to agree on the domains and items under each domain in the checklist.

5. **Beta-testing** of the checklist, by implementing it in four newly funded trials (ROMA-W, TRICS-IV, PROPHESY-2, BCIS-4) and evaluating its implementation via questionnaires to trial teams to assess usefulness, ease of use and the collection of under-served group recruitment/retention metrics. If possible, we will also conduct semi-structured interviews with trial staff utilising the checklist to gain further insight into barriers and facilitators to implementation.

In addition to the above, members of the Leicester Cardiac Surgery Research Team are currently undertaking community engagement in under-served areas of Leicestershire with the support from the NIHR Leicester Biomedical Research Centre. The objective is primarily to discuss the significance and relevance of strategies identified in the scoping review with members of the public and explore new opinions that might not already be documented, with the aim to further inform the development of the checklist.

This initiative has co-leadership from patient and public members who contribute to the strategy and operational meetings, direct national steering groups, and advocate for inclusivity in research with external partners.

Centres that participate in research, and patients who participate in research studies, demonstrate improved clinical outcomes compared to those who do not. It is hoped that the impact of this initiative will improve participation from underserved

groups in cardiovascular trials, which will in turn increase the applicability of trial findings across the whole population and allow clinicians to make informed treatment decisions with every patient. High quality trials will help cardiac surgery adapt to the needs of the population as new techniques emerge, and the population becomes older with more long-term concomitant conditions.

Acknowledgements

The **National Cardiac Surgery Trials Initiative** and the National Cardiac Surgery PPI Group for overarching support, the NIHR Leicester Biomedical Research Centre for assistance with community outreach, and Heart Research UK for funding support.

References

1 NIHR (2020) Improving inclusion of under-served groups in clinical research: Guidance from the NIHR-INCLUDE project. UK: NIHR. Available at: **www.nihr.ac.uk/documents/improving-inclusion-of-under-served-groups-in-clinical-research-guidance-from-include-project/25435** (29th April 2024).

2 Witham *et. al.* (2020) 'Developing a roadmap to improve trial delivery for under-served groups: results from a UK multi-stakeholder process' *Trials*. 2020; 21: 694. ■

Navigating a new horizon in Robotic Thoracic Surgery training and education with Virtual Learning Environments

Kunal Bhakhri, Consultant Thoracic Surgeon, Robotic Lead, University College London Hospital

In today's digital era, the acquisition of skills in robotic thoracic surgical training has found a revolutionary ally in Virtual Learning Environments (VLEs). My recent experience publishing an e-module on the Royal College of Surgeons of England's future of surgery section delves into the transformative potential of VLEs, strategically designed to align with higher learning theories and reshape the landscape of surgical education.

The idea was to create a resource that transcended the limitations of traditional learning methods, providing a platform that was accessible, interactive, and tailored to the unique needs of surgical trainees in the intricate realm of thoracic robotic surgery.

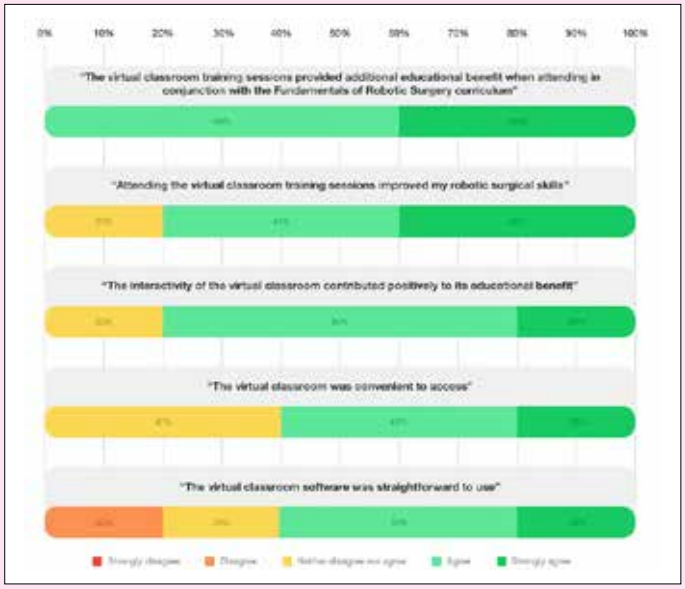
As the e-module found its home on the Royal College of Surgeons' website, the response was immediate and impactful. A diverse group of 360 participants engaged with the content, revealing insights into the effectiveness of the VLE.

Drawing inspiration from Knowles' theory of andragogy, the content aimed not just to disseminate information but to engage learners actively in their educational journey. Interviews and questionnaires were embedded within the module to capture the subjective experiences of users, ensuring that the content resonated with their individual learning needs in thoracic robotic surgery.

Going beyond overall participant responses, the study explored correlations related to virtual training sessions, learners' alignment with their educational needs, and self-directed learning experiences, bringing a technical lens to the nuanced dynamics of thoracic robotic surgery skill acquisition.

It became clear that the VLE was not merely a digital repository of information but where the acquisition of skills in thoracic robotic surgery was nurtured and enhanced. The adaptability, interactivity, and accessibility inherent in the VLE laid the foundation for a new paradigm in surgical education.

My experience with this e-module has broader implications for the future of surgical education, especially in the context of thoracic robotic surgery. The positive outcomes suggest that VLEs can play a vital role in ensuring that surgical trainees receive relevant and tailored education. As we embrace the digital age in thoracic robotic surgery, continuous research and development efforts become essential to optimize VLEs for thoracic surgical trainees further. ■



The Aspiring Congenital Heart Surgeons Association (ACHSA)

Ayush Balaji, Simulation and Surgical Skills Secretary

The Aspiring Congenital Heart Surgeons Association (ACHSA) is thrilled to announce its commitment to fostering the next generation of experts in congenital heart surgery. With an exciting range of events planned, ACHSA promises to provide a supportive and educational environment for aspiring surgeons who wish to thrive, learn, and connect with leaders in the field.

While these events are yet to unfold, we are excited to offer specialized wet labs, simulation days, and interactive workshops. Each event will be carefully curated to enhance both the educational and professional development of our members, allowing them to engage with the latest surgical techniques and advancements.

We are also excited to introduce an upcoming webinar series designed to bring cutting-edge discussions right to your doorstep. This series will feature experts in pediatric and adult congenital heart surgery and provide updates on the latest research and technological advancements. The biggest focus however is to structure an online programme to help educate juniors starting from fundamentals working systematically to explore the various procedures and ideas within congenital cardiac surgery.

Whether you're just beginning your journey or looking to deepen your expertise, ACHSA is your gateway to a community of passion, innovation, and excellence. We are currently recruiting regional representatives across all areas in the UK and Europe, offering a unique opportunity for members to take on leadership roles within our vibrant community.

Stay tuned for more details on our events and the launch of our webinar series. Join ACHSA today and be a part of shaping the future of congenital heart surgery. For more information on how to get involved, please visit our website or contact our team directly.

Join us and get invoved in helping to advance training in congenital heart surgery! **https://theachsa.weebly.com** ■

Ayush Balaji
SIMULATION & SURGICAL SKILLS SECRETARY

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Prof Attilio Lotto

Prof Mahmoud Loubani

Get-together of the Clinical Pectus & RESTORE Trial Teams at James Cook Hospital

Shoots of recovery for pectus patients in England

Clare Burdett, Thoracic Trainee ST7, James Cook Hospital, Middlesbrough
Joel Dunning, Consultant Thoracic Surgeon, James Cook Hospital, Middlesbrough
Enoch Akowuah, Consultant Cardiac Surgeon, James Cook Hospital, Middlesbrough
Babu Naidu, Consultant Thoracic Surgeon, Queen Elizabeth Hospital, Birmingham
Rebecca Maier, Head of ACU, James Cook Hospital, Middlesbrough
Lisa Chang, Principal Research Manager, James Cook Hospital, Middlesbrough
Leanne Marsay, Senior Research Manager, James Cook Hospital, Middlesbrough

In 2019, the outstanding service provided to our patients with Pectus Excavatum (PE) by >20 units in England was ceased by NHS England after a review concluded that there was not enough evidence to support this surgery on the NHS.

A small concession was made with a request for an urgent policy review to consider the most severe cases in the country. Case reports of patients with syncope, collapse, dysphagia and even VF arrest (during scoliosis surgery) were presented. This led to the creation of the National MDT which can sanction surgery for the very severest cases in England. This outstanding weekly pectus MDT hosted at Barts (Friday at noon) is open to anyone with an interest in pectus to attend.

RESTORE is a randomised controlled trial that will recruit 200 participants with severe PE from around twelve centres. There will also be an observational cohort of 100 participants from the group that is accepted for surgery by the National MDT. It aims to establish the impact of corrective surgery for PE on physical function, cardiopulmonary function and also investigate its cost effectiveness. The target population is patients ≥12 years old with no upper age limit. It is for patients with PE (Haller Index of >3.25 on expiratory cross-sectional CT scan imaging) and exhibiting physical symptoms attributable to the pectus abnormality. RESTORE will compare an intervention group (early surgery): corrective surgery for

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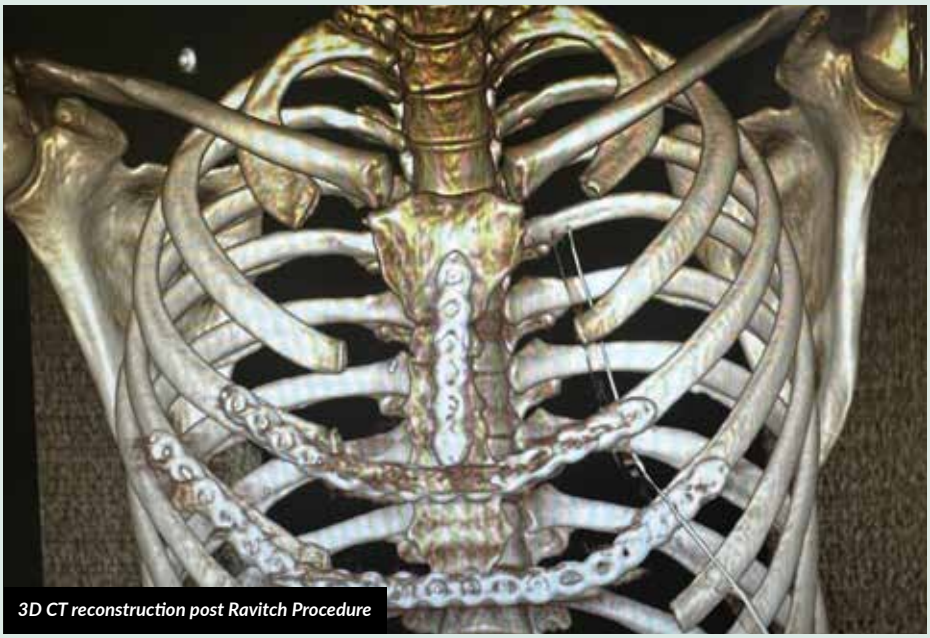


3D CT reconstruction post Ravitch Procedure

PE within three months after randomisation and a control group (no surgery prior to primary outcome). For the latter group, the surgery will be delayed for one year after randomisation and following primary outcome measures at one year. Both Nuss and Ravitch procedures will be offered and decided on patient choice. Interested trainees and AHPs will be able to get involved as Associate PIs – with the scheme opening to applications around September.

As part of the planning for this trial we have surveyed centres across England to determine experience and surgical preferences. Not surprisingly, with a long hiatus, there are some interesting points worth noting.

Across the 17 centres interested in taking part in the trial, the number of surgeons at each centre with previous experience and a desire to offer Pectus surgery ranged from 1-4 (mean 1.8), with nine centres having a sole surgeon. Thirteen centres can offer adult surgery, one paediatric and three can offer both.

For surgeons with some pectus experience, approximate case numbers for the Nuss procedure ranged from 0-700 (mean 57/ median 15). For the Ravitch procedure experience ranged from 0-165 (mean 36.9 / median 20). The majority of surgeons had some experience of both procedures (83%). For the remainder – 10% had experience of Nuss and 7% Ravitch. Going forward, fifteen centres felt able to offer both Nuss and Ravitch with nine centres saying they would have a preference for offering Nuss, but could perform Ravitch at the patient's request. The other two centres would only be comfortable offering the Nuss procedure. Six centres have had experience of performing hybrid procedures – Nuss bars with costal cartilage resections (sometimes required in older patients).

There have been some trends and potential developments in surgical technique over the last few years in other countries where pectus surgery has continued. To determine likely practice here and opinion on these techniques we asked a series of questions to enquire about the following:

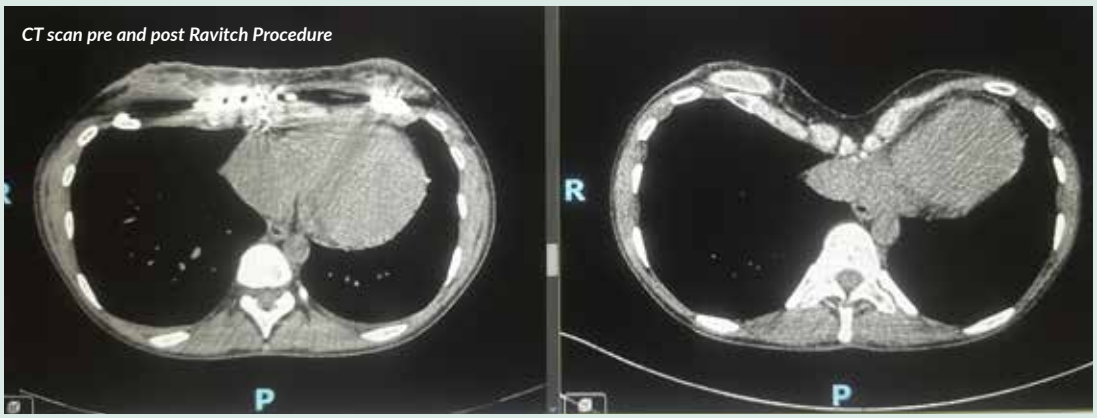
Cryoanalgesia is a non-pharmacological technique available for pain relief. Five centres (30%) said they have experience with it and would use it for their pectus cases. Of those that don't, eleven centres said they would be interested in learning to use it and one centre said they did not feel it would be useful. Common methods of pain relief previously used included PCA, Epidurals and nerve blocks.

Sternal elevation using a crane has become standard practice in many centres in the USA for Nuss procedures. It lifts the sternum off the heart and helps with visualisation for safe passage of the bars and possibly easier bar placement. Here, seven centres (41%) said they have access to this system and would use it. All ten centres not currently using it said they would be interested in doing so going forward.

Bar stabilisation is used to prevent Nuss bars from flipping or migrating. Fifteen centres (88%) said they would routinely use at least one stabilising plate per bar to secure it in place. One centre would often use but not always and another centre prefers to only suture. The Hammock technique (where sutures are placed around the bar and the ribs) to prevent intercostal stripping is another technique described for helping to prevent movement of the bars. It has been popularised in the USA. Two centres in England have used this approach and would continue to do so. Ten centres said they would be interested in learning it, whilst five felt it would not be of benefit.

There remains no surgical option for pectus patients impacted psychologically and no route to surgery for anyone with Pectus Carinatum and Arcuatum. However, our survey shows that there is still expertise and a willingness to operate and innovate across surgical centres in England. RESTORE will be the first ever RCT to be performed for PE surgery and as such, the trial will have a major impact on international practice and guidelines for a significant cohort of patients who fulfil the study criteria. ■

CT scan pre and post Ravitch Procedure



Pan-London Decade-Long Analysis of Misdiagnosis of Acute Aortic Syndromes

Prof Aung Oo, Professor of Cardiovascular Surgery Clinical Lead for Aortovascular Surgery, Barts Health NHS Trust
Farhin Holia, Clinical Research Fellow, Barts Health NHS Trust

Transforming AAS Care: The Dawn of PanDAMAAS

In the United Kingdom, the silent crisis of acute aortic syndromes lurks, affecting thousands and challenging the very anchors of our healthcare system. Of the 4,000 plus individuals annually who face this life-threatening condition, fewer than 1,500 receive the lifesaving interventions they desperately need. Now, from the heart of London, rises the PanDAMAAS initiative – a beacon of hope set to revolutionize the approach to AAS care. As the city navigates an astounding 200 surgical operations for Type A dissections each year – 30% of the country's total – PanDAMAAS emerges not just as a study but as a promise for a new era in patient outcomes and care efficiency.

Pilot to PanDAMAAS: Laying the Groundwork for Change

The cornerstone of the forthcoming PanDAMAAS project is our pilot study meticulously carried out over a ten-year period at Barts Health NHS Trust hospitals from 2012 to 2022. This extensive investigation probed the prevalence, patterns, and impact of misdiagnoses on AAD cases. A troubling finding was the high rate of initial misdiagnosis, especially in patients whose symptoms deviated from the norm. The pilot study's statistical data painted a worrying picture – a misdiagnosis rate at 5.35% with these errors resulting in a mortality rate of 67% for misdiagnosed individuals.

The pilot highlighted a significant challenge: recognizing AAD's diverse symptomatology. Classic symptoms might prompt quick action, but atypical presentations often fly under the radar, leading to fatal delays or entire misses in diagnosis. Such diagnostic challenges are exacerbated by a lack of uniform guidelines for both diagnosis and management, leading to inconsistent patient care. Clinical ambiguities and cognitive biases contribute to this issue, intensifying the urgency for significant improvements. The absence of standardized protocols further complicates AAD diagnosis and treatment, with inconsistencies and biases compromising patient outcomes. A lack of awareness both within the public sphere and healthcare settings perpetuates the risk factors associated with AAD.

The Chief Investigator, Dr Farhin Holia, a Senior Registrar in Emergency Medicine at Barts, starkly reminds us of the gravity of these findings: "Atypical symptoms are subtle signs of mal-perfusion – misdiagnose them, and the line between life and death blurs. Mastery of AAD's pathophysiology is imperative to save lives." This statement is a resounding call for action, propelling the initiative forward.

Strategic Study Design: The PanDAMAAS Multi-Institutional Approach

The PanDAMAAS study is a pioneering multi-institutional initiative that signifies a paradigm shift in diagnosing and managing acute aortic syndromes. Spanning from 2012 to 2022, it forges connections across a constellation of London's aortic centres, tertiary and district hospitals. This collaborative effort draws on the joint expertise of emergency, cardiac, and vascular surgeons, all focused on the goal of improving aortic health.

Utilizing a mixed-methods framework, PanDAMAAS amalgamates a comprehensive dataset from Electronic Patient Records, clinical databases, diagnostic codes, autopsies, and coroners' reports. Complementary insights from the National Institute for Cardiovascular Outcomes Research and the National Vascular Registry further enrich this data set. Together, the information provides a detailed epidemiological overview of AAS, assessing incidence, diagnostic practices, rates of misdiagnosis, and examining the critical period from symptom onset to diagnosis and intervention. Critical to this assessment is the evaluation of diagnostic tools to ascertain their precision and reliability.

Alongside quantitative analysis, the study's qualitative research explores the diagnostic journey for AAS. Partnered with The Aortic Dissection Charitable Trust's Patient and Public Involvement group, the research involves patients and healthcare providers in interviews, focus groups, and surveys. This direct engagement is aimed at uncovering the complexities and multi-faceted challenges present in diagnosing and treating AAS.

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Through its comprehensive methodology, the study is poised to articulate a detailed understanding of AAS, systematically analysing contributing factors and uncovering patterns in diagnostic approaches and patient management. The study aims to develop an extensive body of evidence and interpret patient experiences, ultimately aspiring to inform and refine future protocols and best practices for the management of acute aortic syndromes.

Aligning with National Health Priorities

PanDAMAAS aligns with UK health priorities, reflecting urgent patient safety and healthcare quality initiatives, and resonates with the strategic imperatives set by former Health Secretary Steve Barclay and the James Lind Alliance's emergency medicine priorities.

Endorsements and Funding

The PanDAMAAS study boasts endorsements from key bodies like the UK Aortic Society and the Society for Cardiothoracic Surgery, with The Aortic Dissection Charitable Trust as its primary funder, and seeks additional support to realize its full potential.

Impact and Value of the Study

Standardization of Diagnostic Protocols: Developing and implementing a standardized diagnostic protocol will reduce variability and ensure a consistent standard of care for AAD across different institutions.

Comprehensive Treatment Framework: Creating a comprehensive treatment protocol ensures an integrated and continuous care experience for patients from diagnosis to post-discharge. Surgical and non-surgical management guidelines will reflect the latest evidence and expert consensus.

Implementation of an Anonymous Patient Story Sharing Platform: The implementation of an anonymous patient story sharing platform will provide valuable insights into the AAD patient experience, highlighting unmet needs and informing improvements in care.

Educational Outreach: The initiative will deliver advanced training to medical staff for prompt and accurate aortic dissection management and improve public awareness of acute aortic syndromes, emphasizing the recognition of symptoms and the urgency of seeking care.

National AAD Registry: The repository will play a crucial role in compiling comprehensive data on aortic dissection, revealing trends and refining clinical practices through detailed cataloguing of AAD cases, thereby contributing to reduced morbidity and mortality associated with the condition.

Impact on National and Global Health Standards: The research outcomes and clinical protocols from this study are poised to transcend borders, shaping policy and redefining guidelines worldwide, thereby establishing a new global benchmark in aortic dissection management and enhancing patient safety and care quality.

Call to Action

Embark with us on a transformative journey; by joining forces, we can steer the future of aortic dissection research and collectively pioneer a new era in the battle against acute aortic syndromes. ■

The Second Biennial St. James's Hospital Thoracic Surgical Oncology Course – the Irish / US Perspective

Gerard J Fitzmaurice, Vincent Young, and Ronan Ryan, Department of Cardiothoracic Surgery, St James's Hospital, Dublin

The second biennial St James's Hospital thoracic surgical oncology course, focusing on the multi-disciplinary management of lung cancer, was hosted at The Royal College of Surgeons in Ireland on Friday May 10th 2024. We were honoured to have two St. James's Hospital alumni, Prof David Rice from MD Anderson Cancer Center in Houston, Texas and Prof Patrick Forde from Johns Hopkins, Baltimore as invited international faculty.

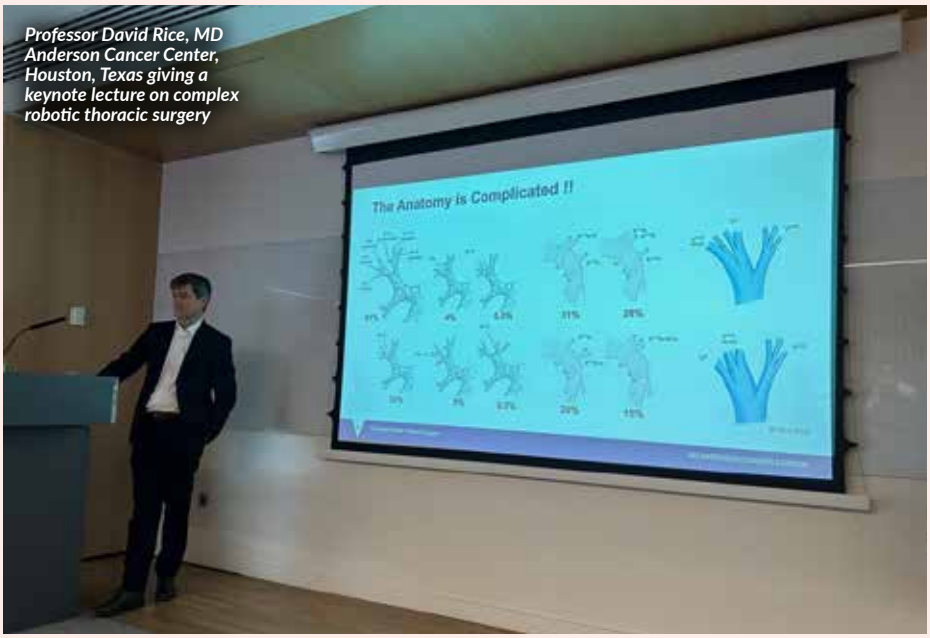
The RCSI campus in Dublin city centre is home to the largest clinical simulation facility in Europe, enabling trainees the opportunity to develop surgical skills in a state-of-the-art simulated clinical environment. This year, trainees rotated through four key stations – VATS lobectomy was performed on heparinised pig models, including airway assessment with flexible bronchoscopy, with the opportunity to undertake open resections for advanced trainees. Participants performed chest wall resection and reconstruction using a high-fidelity simulator with a variety of materials, from traditional to advanced, including rib fixation and biological patches. Heart / lung blocks were used for bronchial,


Participants and faculty in the clinical simulation wetlab at The Royal College of Surgeons in Ireland

carinal and PA sleeve resections and anastomosis with an excellent faculty ratio of 2:1. Finally, rigid bronchoscopy with airway assessment and management, including stent use, enabled trainees an opportunity to develop a less-practiced skill.

The morning lectures prior to the wetlab provided a succinct overview of the diagnosis, staging, and fitness for surgery of lung cancer patients, followed by an introduction to VATS lobectomy using the anterior approach (Copenhagen technique), complex airway and vascular resections, and chest wall reconstruction techniques. The afternoon session provided a broad overview of advanced bronchoscopic techniques available at St. James's for the diagnosis and staging of lung cancer, particularly assessment of more challenging lesions. By popular demand, a unique behind-the-scenes view of stereotactic ablative radiotherapy provided the trainees with an overview of the technical challenges, as well as the indications for its use in modern lung cancer care.

Prof Patrick Forde, principal investigator in CheckMate-816 that evaluated neoadjuvant Nivolumab plus chemotherapy in resectable lung cancer, provided a detailed overview of surgical aspects related to neoadjuvant and perioperative immunotherapy trials. We are proud to have Prof Forde joining our lung cancer team at St. James's later in the year as he returns home to Ireland. Prof David Rice, an early adaptor of robotic thoracic surgery in the US, provided a keynote lecture on complex robotic thoracic surgery with an overview of robotic segmentectomy and thereafter a particular focus on robotic lung resections after neoadjuvant chemo-immunotherapy and targeted therapy. His intra-operative videos and key discussions around both technical and intra-operative decision-making were widely acknowledged to be a highlight of the course amongst both faculty and trainees alike. We are particularly grateful that he kindly took the time to visit our unit and give advice and guidance to our trainees during his visit home.



Professor David Rice, MD Anderson Cancer Center, Houston, Texas giving a keynote lecture on complex robotic thoracic surgery

The course closed with an interactive tumour board discussion between faculty and trainees. The first case involved a German tourist, who presented with haemoptysis, due to a large left upper lobe tumour with suspicion of chest wall involvement and nodal disease. The second case involved a patient with low volume single station N2 disease who was planned for enrolment in the NeoCOAST-2 Phase II neoadjuvant randomised study, however was found to have an ALK mutation during work-up. The final case involved a functionally restricted patient with an obstructing RUL tumour who underwent a robotic Sleeve right upper lobectomy, a benefit of the evolving robotic program at St. James's. These cases facilitated a challenging discussion between faculty and senior cardiothoracic surgical trainees around the intricacies of radiological evaluation, management of more advanced malignancies in an evolving landscape, and decisions around fitness for treatment – all key components in preparation for independent clinical practice.

The course was open to trainees across the British Isles with almost all of the local cardiothoracic surgical trainees attending and numbers limited due to over-subscription. The feedback received was again excellent across all levels of experience. Please keep an eye out for notification via the SCTS weekly bulletin for our next course in 2-years time. ■

National Heart and Lung Donor Audit Proforma

Espeed Khoshbin, Trust Clinical Lead for Organ Utilisation, Consultant in Cardiac Surgery Transplantation and Mechanical Circulatory Support, Harefield Hospital, Middlesex

Hannah Griffin, Clinical Nurse Specialist– Transplant Recipient Coordinator, Harefield Hospital, Middlesex

One of the recommendations by the organ utilisation advisory group (as part of DOH and Social care) is development of a unified national donor audit proforma. This would help region clinical leads for organ utilisation (CLUs) to improve organ utilisation. Its aim was to agree on a common donor audit proforma and reduce variability in our practice. Simultaneously a better understanding of the high-quality donors and standardization of donor audit, improve communication amongst transplant teams in the UK.

The success of transplant programmes relies on the availability of donor organs. Our ability to provide organ transplantation to those who need it is limited by the number of organ donors. There was a significant rise in donor availability following the change in UKs law in 2019. Max and Keira's Law that achieved Royal Assent by Queen Elizabeth II, introduces a system of opting–out or deemed consent. However due to the COVID pandemic transplant activity suffered, especially lung transplantation. This was partly by its impact on the NHS as a whole and to some extent the lack of publicity for this new law.

National audits have provided strong evidence that vary between unit's impact organ transplantation. It has been agreed that there is a need to review the organ transplantation infrastructure, to explore how the resources already available could be best utilised, to meet the needs of patients.

In consultation with the regional and national heart and lung CLUs, we conducted a national initiative to develop an audit proforma. This was a first step in improving organ utilisation across the UK. Following the agreement by all heart and lung transplant centres the proforma will sought approval through the heart and lung clinical advisory groups.

Max Johnson who received a heart from nine-year-old Keira Ball:

"Even if it saves just one life, it will be worth it. I know what it is like to wait for an organ, so I hope the change in law will mean people won't have to wait as long in the future" – Max.

"In consultation with the regional and national heart and lung CLUs, we conducted a national initiative to develop an audit proforma. This was a first step in improving organ utilisation across the UK."

To improve donor utilisation, we have conducted a regional weekly, monthly, and yearly audit of both heart and lung donation and utilisation at Harefield hospital. This has helped us identify areas that need improvement such as the deficiencies in our recipient pool, the rate of decline due to HLA mismatch, issues related to logistics, such as the ability to conduct simultaneous transplants etc. In doing so we have concentrated our efforts to find solutions such as fast-tracking potential recipients with certain desired blood groups or sizes to the donor pool. This has created a full range of patients available to match donors to recipients and improve the rate of organ utilisation. By seeking advice regarding HLA mismatch, and how to manage highly sensitised patients on our list, we have made improvements in our service and explored desensitisation methods. Finally, addressing some of the long-standing logistic issues that prevented us from accepting simultaneous organs such as heart and lungs from the same donor, a 10-degree fridge was installed. This has enabled us to safely delay lung transplantation, extending the lung ischaemic time, so that while the heart transplant is being performed by one team, often overnight, the lung transplant may be performed the next morning by a fresh surgical team, working in daylight hours.

We aim to extend this audit initiative nationally to produce both a national, as well as a unit specific, audit trail of activity.

The outcomes will be anonymised and unit specific from the start. We endorse a no blame culture where we learn from our experience for the good of the patients, and to improve organ utilisation across the country. ■

How and when to use aprotinin for patients at high risk of bleeding undergoing isolated CABG: *Professor Dumbor Ngaage*

APROTININ
10,000 KIU/ml Injection BP

Aprotinin is indicated to reduce blood loss and transfusion requirements in patients at high risk of major bleeding, undergoing isolated coronary artery bypass graft (CABG) surgery with cardiopulmonary bypass. Aprotinin should only be prescribed after careful consideration of the benefits and risks, and the consideration that alternative treatments are available.[1]

Dumbor Ngaage, Consultant Cardiac Surgeon, Hull University Teaching Hospitals NHS Trust

Professor Dumbor Ngaage, a Consultant Cardiac Surgeon at the Hull University Teaching Hospitals NHS Trust answers questions on his experience with aprotinin and where he sees it offering a benefit for patients at high risk of bleeding undergoing isolated CABG.

Prof Ngaage obtained his primary medical degree (MB.BS) from the University of Benin, Nigeria, and postgraduate degrees in General Surgery; FWACS (Fellow of the West African College of Surgeons) in Nigeria, and FRCSED, in the UK. He obtained FRCS (C-Th), FETCS in cardiovascular surgery, FETCS in thoracic surgery, and a MS in clinical research from The Mayo Graduate School, USA. Prof Ngaage is on the editorial board of cardiothoracic and intensive care journals, and has published high impact research in blood conservation strategies in cardiac surgery. Prof Ngaage is the Chief Investigator for FARSTER and FARSTER-Care, both NIHR-funded UK RCTs that will redefine postoperative recovery after cardiac surgery.

When carrying out an isolated CABG procedure, how do you determine which patients may benefit from aprotinin?

As a potent haemostatic agent, aprotinin is usually not required for most elective isolated first-time CABG procedures. I consider using aprotinin in patients at high risk of post-operative bleeding, namely in patients:

- Undergoing CABG with continued dual antiplatelet therapy* (DAPT) or recent loading with DAPT
- Pre-operative anaemia
- Acute coronary syndrome/NSTEMI/STEMI requiring urgent surgery.

I also consider using aprotinin in patients that will not, or cannot, be transfused, such as Jehovah's witnesses and those with rare antibodies.

Post-operative bleeding can lead to increased blood transfusions and re-operation for bleeding/tamponade – I describe this as "the triple jeopardy of cardiac surgery". Patients who are more vulnerable to the dire consequences of this triple jeopardy include octogenarians, heart failure patients and those with low body mass index. Aprotinin could play a role in the haemostatic strategy for some of these patients.

*DAPT = aspirin and clopidogrel or ticagrelor or prasugrel

If a patient requires an emergency or urgent CABG and has received DAPT within the last 5 days, is aprotinin appropriate in this scenario?

About 35% of patients at my institution who are awaiting a CABG procedure are taking DAPT. Often, these patients do not stop DAPT in sufficient time for surgery, especially if the procedure is non-elective. Aprotinin may be considered for these patients, and its potent anti-inflammatory and haemostatic effects may enable CABG to be performed effectively in this scenario. This has been demonstrated in the study by van der Linden et al. 2005 which compared the use of aprotinin vs placebo in patients who received clopidogrel five days before CABG.[2] It should be noted that aprotinin is not heparin-sparing and adequate anticoagulation needs to be maintained during aprotinin therapy, in line with the aprotinin label.[1]

When would you choose aprotinin instead of tranexamic acid (TXA) on isolated CABG?

Aprotinin has a different mode of action and is a more effective haemostatic agent TXA.[3,4] It has been shown that TXA has been linked to a higher risk of post-operative seizures compared to placebo.[5] In high risk patients, compared to TXA, patients taking aprotinin have less post-operative blood loss, a lower need for transfusions, and shorter stays in the ICU.[6]

Aprotinin 10,000 KIU/ml Injection BP Prescribing Information - Consult the summary of product characteristics (SmPC) before prescribing

Name and active ingredients: Aprotinin solution for Injection. Each 50ml vial contains 500,000 Kallikrein Inactivator Units (KIU) (10,000 KIU/ml). **Indication:** Prophylactic use to reduce blood loss and blood transfusion in adults, at high risk of major blood loss, undergoing isolated cardiopulmonary bypass graft surgery (CABG). Only to be used after careful consideration of the benefits and risks, and the consideration that alternative treatments are available. **Dosage and administration:** An appropriate aprotinin-specific IgG antibody test may be considered before administration and a 1ml (10,000 KIU) test dose should be administered to all patients at least 10 minutes prior to the remainder of the dose. An H1 antagonist and an H2 antagonist may be administered 15 minutes prior to the test dose. In any case standard emergency treatments for anaphylactic and allergic reactions should be readily available. After the uneventful administration of the 1ml test dose, the therapeutic dose of aprotinin may be given. An initial loading dose of 1 - 2 million KIU is administered as a slow intravenous injection or infusion over 20 - 30 minutes after induction of anaesthesia and prior to sternotomy. A further 1 - 2 million KIU should be added to the pump prime of the heart-lung machine. Aprotinin and heparin must each be added during recirculation of the pump prime to assure adequate dilution prior to admixture with the other component. Following the initial infusion, 250,000 - 500,000 KIU of aprotinin per hour should be administered as a continuous infusion until the end of the operation. In general the total dose per treatment should not exceed 7 million KIU. The safety and efficacy of aprotinin in children below 18 years of age have not been established. Aprotinin should be infused using a central venous catheter. The same lumen should not be used for the administration of any other medicinal product. When using a multi-lumen central catheter a separate catheter is not required. Aprotinin must be given only to patients in the supine position and must be given slowly (maximum 5 - 10ml/min) as an intravenous injection or a short infusion. Contraindications: Hypersensitivity to the active substance or any of the excipients listed in SmPC. Patients with a positive aprotinin-specific IgG antibody test. In case no aprotinin specific IgG antibody test is possible prior to treatment, administration of aprotinin to patients with a suspected previous exposure including in fibrin sealant products during the last 12 months is contraindicated. **Special warnings and precautions for use:** Aprotinin should not be used when CABG surgery is combined with another cardiovascular surgery because the benefit risk balance of aprotinin in other cardiovascular procedures has not been established.

Aprotinin is not a heparin-sparing agent and it is important that adequate anticoagulation with heparin be maintained during aprotinin-therapy. Elevations in the partial thromboplastin time (PTT) and celite Activated Clotting Time (ACT) are expected in aprotinin-treated patients during surgery, and in the hours after surgery. Therefore, the PTT should not be used to maintain adequate anticoagulation with heparin. In patients undergoing cardiopulmonary bypass with aprotinin therapy, one of three methods is recommended to maintain adequate anticoagulation: ACT, Fixed Heparin Dosing, or Heparin Titration. If ACT is used to maintain adequate anticoagulation, a minimal celite-ACT of 750 seconds or kaolin-ACT of 480 seconds, independent of the effects of haemodilution and hypothermia, is recommended in the presence of aprotinin. See the SmPC for further information on monitoring of anticoagulation during cardiopulmonary bypass. Blood drawn from the aprotinin central infusion line should not be used for graft preservation. Administration of aprotinin, especially to patients who have received aprotinin (including aprotinin containing fibrin sealants) in the past requires a careful risk/benefit assessment because an allergic reaction may occur. Renal dysfunction could be triggered by aprotinin, particularly in patients with pre-existing renal dysfunction, therefore, careful consideration of the balance of risks and benefits is therefore advised before administration of aprotinin to patients with pre-existing impaired renal function or those with risk factors. An increase in renal failure and mortality compared to age-matched historical controls has been reported for aprotinin-treated patients undergoing cardiopulmonary bypass with deep hypothermic circulatory arrest during operation of the thoracic aorta. Adequate anticoagulation with heparin must be assured. An association between aprotinin use and increased mortality has been reported in some non-randomised observational studies while other non-randomised studies have not reported such an association. See the SmPC for more information on mortality. **Undesirable effects:** For the full list of undesirable effects see the SmPC. Uncommon (≥ 1/1,000 to <1/100): Myocardial ischaemia, coronary occlusion/ thrombosis, myocardial infarction, pericardial effusion, thrombosis oliguria, acute renal failure, renal tubular necrosis. Rare (1/10,000 to <1/1,000): anaphylactic reaction. Very rare (<1/10,000): anaphylactic shock. **Legal category:** POM. **Presentation and basic NHS price:** £83.00 for 1x50ml vial. **Marketing authorisation number:** PL 40621/0020. **Marketing authorisation holder:** Nordic Group B.V, Siriusdreef 41, 2132 WT Hoofddorp, The Netherlands. **Date of revision:** June 2024. **Item code:** UK-TRA-2400020

Adverse events should be reported. Reporting forms and information can be found at yellowcard.mhra.gov.uk or search for MHRA Yellow Card in the Google Play or Apple App Store. Adverse events should also be reported to Nordic Pharma at pv.uk@nordicpharma.com

References:
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NORDIC PHARMA

Enhancing Cardiothoracic Education in the UK: The National Online Cardiothoracic Surgical Training Programme

Georgia R. Layton, National Online Training Programme Fellow
Michael Shackcloth, National Online Training Programme Director

Surgical training in the UK must continually evolve to utilise current technology and meet the ever-increasing demands of the NHS. The introduction of the National Online Cardiothoracic Surgical Training Programme will hopefully mark a pivotal advancement in this journey. This article explores the inception, structure, and benefits of this innovative programme.

In the contemporary decade, current models of surgical education in the UK have been challenged by reduced training hours, enhanced complexity of cases, geographical disparities in training opportunities and a seemingly ever increasing administrative burden and demands from service provision. There is an immediate and present need for the learning environment to adapt and better accommodate the busy schedules of surgical trainees and trainers. The National Online Surgical Training Programmes are being developed in collaboration with Health Education England as a strategic response to these challenges which are almost universal across pan-specialty surgical training. The pilot, first rolled out for Core Surgical Training, demonstrated quantifiable success and so the scheme is planned to be rolled out to all specialties within higher surgical training.

In Cardiothoracic surgery we will provide a regular series of high-quality, consultant delivered weekly lectures, directly aligned with the curriculum. These will be delivered remotely at 8am on Thursday mornings. The programme will cover most, if not all, of the cardiothoracic surgery curriculum over a two-year period with fundamental and common themes being covered in greater detail than peripheral topics outlined in the syllabus. All trainees will be invited to attend live but, crucially, content will be recorded and available in a user-friendly format via the free, password-protected online platform for those who cannot attend in real-time, or again for revision. This will ensure equity in access to high-quality educational resources and expert knowledge regardless of an individual's location or schedule. It will enable local trainers to concentrate on high-yield, small group seminars, skills sessions and simulation training, rather than giving didactic lectures, as these will now be provided, standardised for all, on a national scale within this programme.

Each lecture will last approximately 30 minutes and be delivered by a leading professional in the country. The majority of sessions will be delivered by surgeons but where relevant, experts from allied fields for example cardiology, oncology and perfusion science, will be invited to present. Each session will be co-chaired by a trainee who will field questions via the chat and ensure sessions run to schedule. Through this, the programme also offers experience to trainees in virtual chairing, providing practical exposure to moderating discussions, engaging with speakers, and facilitating audience questions. The lectures will deliver a significant proportion of the knowledge required to pass the FRCS CTh examination and will support the curriculum aim that all trainees reach the performance level of a day

> **"By harnessing the power of online learning technologies, the National Online Cardiothoracic Surgical Training Programme will offer a flexible, and comprehensive training model that prepares today's trainees for tomorrow's challenges in the surgical field."**

one Consultant in the UK. The platform will not be truly comprehensive for exam preparation, but it will offer structure and a reputable source of broad learning materials as a foundation upon which trainees can prepare themselves.

The lectures will be delivered via the virtual learning platform that has specifically been designed for this purpose, the Postgraduate Virtual Leaning Environment (PGVLE). The learning platform has the ability to provide multiple choice questions (MCQ) on each lecture, to test the trainee's knowledge, and also can provide practice MCQ 'exams' every year. These additional features are at the forefront of plans for future development once the initial lecture programme is functional and effective.

The shift to an online format for didactic lectures comes with numerous benefits. Firstly, with the lecture being recorded it offers unmatched flexibility, allowing trainees to manage their learning alongside clinical commitments. Moreover, it facilitates a more personalised learning journey, where trainees can spend additional time on topics which they personally find challenging. The digital platform has the possibility to be used as a rich repository of resources like videos, reading lists, key papers, guidelines, and case libraries, which can be accessed anytime, enhancing continuous learning. It can also provide data for trainees to evidence their engagement in professional development and learning during annual evaluations.

While the benefits are clear, the transition to an online format is not without challenges. Ensuring that all trainees (NTNs and Trust Appointed Doctors) have adequate access to the PGVLE is crucial and a challenge we have identified as a potential source of disruption to the smooth running of the early programme.

The uses of the PGVLE are endless, and as a later phase of the wider online curriculum project we hope to provide some of the didactic content and pre-course material for the SCTS education courses online to enable trainees to get more hands-on experience and better group discussions on the courses.

The National Online Cardiothoracic Surgical Training Programme will represent a significant leap forward in cardiothoracic surgical education in the UK. By harnessing the power of online learning technologies, it will offer a flexible, and comprehensive training model that prepares today's trainees for tomorrow's challenges in the surgical field. As this programme continues to evolve, it will undoubtedly play a crucial role in shaping the future of cardiothoracic surgical excellence in the UK.

The programme will be starting in September. Please keep an eye on SCTS weekly update emails for further details on how to register for the PGVLE and details of upcoming speakers. ■

New appointments January to August 2024 ...

Name	Hospital	Specialty/Role	Starting Date
Mr Yassir Iqbal	St Thomas' Hospital, London	Locum Consultant Cardiac Surgeon Subspecialty Interest Complex Aortic	October 2023
Mohamed ElSaegh	Blackpool Victoria Hospital	Locum Cardiac Surgery Consultant	February 2024
Haytham Sabry	Liverpool Heart and Chest Hospital	Consultant Cardiac Surgeon – Off Pump CABG	March 2024
Gillian Hardman	Blackpool Victoria Hospital	Locum Cardiac Surgery Consultant	March 2024
Ismail Vokshi	New Cross Hospital	Locum Cardiothoracic Surgery Consultant – Aortic Surgery	March 2024
Giulio Citarella	Manchester Royal Infirmary	Locum Consultant Cardiac Surgeon	April 2024
Adnan Raza	Castle Hill Hospital	Locum Consultant Thoracic Surgeon	April 2024
Ali Al-Sarraf	LGi, Leeds Teaching Hospital, Leeds General Infirmary	Consultant Congenital Cardiac Surgery	May 2024
Aravinda Page	Harefield Hospital, Guy's and St Thomas' NHS Foundation Trust	Consultant in Heart and Lung Transplantation, MCS and Cardiac Surgery	July 2024
Anton Sabashnikov	Harefield Hospital, Guy's and St Thomas' NHS Foundation Trust	Consultant in Heart and Lung Transplantation, MCS and Cardiac Surgery	July 2024
John Massey	Castle Hill Hospital	Consultant Cardiac Surgeon Sub-Specialty – Mitral Valve Surgery	August 2024

Aortic Dissection Awareness UK & Ireland national patient charity enjoys strong start to 2024

Christina Bannister, Lead Nurse Case Manager, Cardiac Surgery, Southampton General Hospital

It was a pleasure, as always, to see the patient members of award-winning national patient charity Aortic Dissection Awareness UK & Ireland at the SCTS Annual Meeting in Wales.

A team of eight patients represented the charity, including Miss Sarah Nuttman, the first UK patient to receive a thoracoabdominal aortic repair using the new Terumo Aortic Thoracoflo™ hybrid aortic graft. Just two months after her operation, Sarah surprised her surgeon, Mr Jorge Mascaro of Queen Elizabeth Hospital Birmingham, by attending his presentation of her case and correcting him when he slightly exaggerated her age!

At the charity's stand, the team led by Aortic Dissection survivor and Chair of Trustees, Mr Gareth Owens, were sharing with delegates the great progress being made across the four pillars of the charity's work.

Mr Jorge Mascaro meets two of his Aortic patients at the SCTS Annual Meeting: Sarah Nuttman (right) – 1st UK ThoracofloTM patient and Anne Cotton (left) – total Aortic replacement in three stage.

Supporting Patients & Families

The charity recently welcomed the 1,000th member of its Aortic Dissection Buddies private online peer support group – an invaluable resource for patients and families. Aortic Dissection survivors, their relatives, caregivers and bereaved relatives are all welcome and have dedicated support available within the AD Buddies group, which is facilitated by a team of moderators.

Although clinicians are generally not admitted to the AD Buddies group, the charity has made an exception for Aortic Specialist Nurses, who are especially loved by its patient members. This is a mutually-beneficial arrangement. The nurses learn from the discussions that patients have online about their condition, concerns and care, while the charity benefits from having the nurses' professional expertise in the support group.

SCTS member Emma Hope will join the national patient charity as its first Aortic Specialist Nurse in September

The charity views Aortic Specialist Nurses as an essential component of an Aortic service, however not all centres have them (yet). In May it was announced that SCTS member Emma Hope will join the charity as its first Aortic Specialist Nurse in September, to ensure that all its patient members can benefit from the service they provide.

Since launch at the SCTS 2022 annual meeting in Belfast, the charity has printed and distributed over 8,000 copies of its acclaimed handbook, Aortic Dissection: The Patient Guide. Stocks are available free of charge for anyone treating Aortic Dissection patients, by filling-in the order form here: **tinyurl.com/ADPtGuide**. SCTS has been joined by the Vascular Society, the Intensive Care Society and by STS and SVS in the USA in endorsing this definitive patient guide to Aortic Dissection.

Recently, SCTS members Miss Ana Lopez-Marco and Dr Brianda Ripoll helped the charity to produce a Spanish-language edition, which has just been published.

Saving Lives

The charity's life-saving THINK AORTA campaign continues to grow in the UK and globally. A regular THINK AORTA podcast, hosted by Paramedic Science Lecturer Simon Rose, is now being produced in partnership with the School of Health Sciences at the University of East Anglia.

April saw the launch of the THINK AORTA Canada campaign at the AATS annual meeting in Toronto, with many senior clinicians welcoming the life-saving benefits the campaign will bring to Canada. The charity's THINK AORTA team are currently working through enquiries about bringing the campaign to eight new countries.

In June, Mike Lambert, who tragically lost his mother Caroline to an Aortic Dissection, set off to kayak around the coastline of the UK in aid of Aortic Dissection charities, taking the THINK AORTA message with him.

Improving Care and Outcomes

Patients from the charity have been involved in developing the NHS England Acute Aortic Dissection Toolkit from the outset. Now, they are supporting its implementation in the regions. In March, members of the charity from across southern England attended the launch of the new SW/SE Region Acute Aortic Dissection SOP in Oxford. This is the first Regional AAD SOP to achieve formal endorsement from the national patient charity and THINK AORTA. Mr Gareth Owens presented the certificate of endorsement to SCTS member Prof. George Krasopoulos and Vascular surgeon Mr Marcus Brooks, in recognition of the efforts of the whole SW/SE Region team that developed the SOP. He told the team "your work provides an excellent example for other regions to follow".

The SW/SE Region AAD SOP is available via this link: **www.england.nhs.uk/south/info-professional/acute-aortic-dissection/**

Enabling Research

In June, the charity announced that its DECIDE-TAD strategic research collaboration with the University of Leicester, which was the subject of a keynote presentation titled "Toward the Prevention of Acute Aortic Dissection" at the 2023 SCTS Annual Meeting, has received a £3 million NIHR Programme Grant for Applied Research for the next five years to investigate and develop family screening for Thoracic Aortic Disease. SCTS member Prof. Gavin Murphy and the charity's Chair, Mr Gareth Owens, were co-applicants in this successful grant application and co-lead the programme team, which includes a dedicated PPI team from the charity. SCTS member Dr Riccardo Abbasciano presented the results of the 18-month programme development phase of this research at the SCTS annual meeting in Wales.

The progress that the patient charity is making and its impact on Aortic Dissection nationally and internationally have attracted external recognition. In the 2024 Non-Profit Organization Awards, Aortic Dissection Awareness UK & Ireland was named "Best Aortic Dissection Patient Charity 2024 – UK" and the THINK AORTA campaign received the "AI Excellence Award for Patient Safety Advocacy 2024".

The impactful work of this dynamic, patient-led Aortic Dissection charity is something that all of us at SCTS can and should support. ■

THINK AORTA champion Mike Lambert in training to circumnavigate the UK by kayak


Mr. Gareth Owens presents the charity's certificate of endorsement for the new SW/SE Region AD SOP to SCTS member Prof. George Krasopoulos and vascular surgeon Mr. Marcus Brooks

Dr Riccardo Abbasciano at the SCTS annual meeting with patient members of the charity's DECIDE-TAD research programme PPI team

Heart–lung transplantation Freeman Hospital Study Day

Louise Kenny, Consultant Paediatric and Adult Congenital Cardiothoracic and Transplant Surgeon

Katherine Doherty, Transplant Co-ordinator

Asif Hasan, Consultant Paediatric and Adult Congenital Cardiothoracic and Transplant Surgeon

Mohamed Nassar, Consultant Paediatric and Adult Congenital Cardiothoracic and Transplant Surgeon

The first combined heart-lung transplant (HLTx) was carried out in 1981 at Stanford (1). This ground-breaking procedure marked a significant advancement in the field of transplantation, particularly in the treatment of pulmonary vascular disease.

The number of heart-lung combined transplants has shown a declining trend over the years (see Figure 1). The ISHLT registry indicates that the number of combined HLTx peaked in 1989 with 225 recorded but has since decreased to less than 60 per year worldwide (2). Of the 87 centres reporting to ISHLT, the majority report an average of one procedure per year (3). The declining number of combined heart lung transplantation has been predicated by recognition that this operation is now exclusively used for patients with pulmonary vascular disease, vast majority of those have congenital heart disease.

To our knowledge, only four centres in the UK continue to list patients for HLTx and it is uncertain how many are currently in a position to undertake HLTx. Within our unit, combined HLTx has historically been performed by our senior congenital surgeon, Asif Hasan. With limited numbers, and an evolving service provision by our senior surgeon, we took note of concern regarding skill retention and set about to deliver a robust opportunity for training via cadaveric transplantation. With declining numbers, expertise is dwindling across all involved disciplines and as such the day was aimed at the multidisciplinary team for both adults and paediatrics.

At the time of conception and planning for this training day, we had three patients on the HLTx waiting list. A month prior to the set date for cadaveric training, one of our adult congenital patients was fortunate to receive an offer for combined organ transplant. She underwent HLTx with the two current congenital surgeons operating together with the invaluable senior presence and input from A Hasan. This case was an excellent opportunity for the multidisciplinary team to undertake HLTx with senior experience present and built the foundations for advanced discussion and skill development at the subsequent training day. This patient, RB and her husband attended our heart-lung training day to speak to the team about her experience – a perspective for which we are all most grateful to hear (photo below with patient consent).

We started the day with a historical perspective from Mr Asif Hasan. He described the changing landscape of HLTx over the years, from early prolific activity to current day, whilst throwing in tips and tricks along the way. His wealth of experience led us to discuss high-risk patient groups he has identified over the years, with significant concern arising from previous thoracotomies and the consequent dissection and bleeding.

Dr Justyna Rybicka, ACHD cardiology consultant, presented the important considerations of patient selection, including the indications for combined over heart or lung alone. The majority of patients listed from our own institute have a congenital pathology with variably complex surgical history. The additional risk related to these complexities is especially important to consider in patient selection for two-organ transplantation.

Dr Adelyn Henry, ACHD registrar, discussed the Freeman institute and international outcomes which will be published shortly in JHLT Open. Dr Matt Thomas, Lead Paediatric respiratory and transplant physician, presented the considerations for paediatric HLTx including indications, frequency and the challenges primarily related to organ availability in children. Dr James Lordan, our highly experienced respiratory and transplant physician reported upon respiratory considerations. Dr Lordan discussed the shift toward lung-only transplant in the modern era for pulmonary hypertension and demonstrated the ventricular remodelling seen post-op. He covered immunosuppression regimes and the post-operative respiratory complications encountered; graft dysfunction, infection, rejection patterns including CLAD-OB and RAS, and tracheal complications.

Dr John Smith, a senior congenital cardiac anaesthetist presented peri-operative considerations for both anaesthetic and intensive care. This covered the important concepts for safe anaesthesia in pulmonary hypertension based upon ISHLT guidelines. His experience tells the story of recognising the bleeding risk from an empty thorax and supporting the blood pressure at this time to facilitate identification of bleeders for the surgeon.

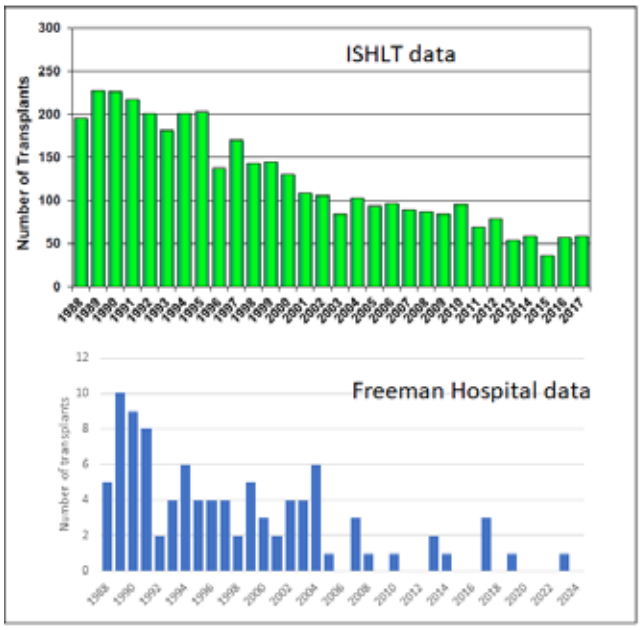

Figure 1: Number of adult HLTx by transplant year from ISHLT data and local Freeman Hospital data. Of note, since 2017, the number of combined HLTx have not been included in the annual ISHLT reports due to small numbers (3).

Katherine Doherty, a transplant co-ordinator next presented a patient journey from referral through to transplant including the nuts and bolts of listing for combined transplant. Our most recently listed and transplanted patient was placed onto the urgent list, and Kat talked through the listing criteria for such, CTAG applications, and the process of allocations nationally. The organ offering process is complex for multi-organ transplant with challenging nuances in the logistics. In our centre this is primarily managed by transplant co-ordinators such as Katherine, and her input was invaluable to our understanding of how these patients get from referral to discharge.

Following the series of exceptional talks, we moved to the cadaveric surgical training lab. The next two sessions were videoed and will be published shortly as an educational video for both HLTx retrieval and implantation available for teams across the globe to access.

With sponsorship from the Newcastle Hospital Charities, we were able to utilise two adult thoracic cadavers. Our retrieval team stepped up, led by Mr Tanveer Butt, to demonstrate and perform a heart-lung en-bloc retrieval. Utilising one cadaver, he took the team through the steps of retrieval, including anaesthetic and ventilation management, and coordination with abdominal teams.

Following retrieval, our two consultant congenital surgeons undertook HLTx implantation, including bypass strategies, explant of the native heart and lungs, preparation of the graft and implantation techniques. Paramount attention was paid to the phrenic and vagus nerves – with recognition of the dire consequences on morbidity following damage to either. Again, this procedure is videoed and will shortly be available with to demonstrate the critical steps.

We appreciate that this is a complex and rare surgical procedure. Development and maintenance of surgical expertise is limited by numbers. While cadaveric surgery, and technical videos can never truly replace training, the team here at Freeman feel well placed to maintain and build upon our well-established heart-lung transplant programme. Additionally, we hope that this educational video will serve as an invaluable resource to teams across the globe wishing to embark upon heart-lung transplant.

The future of combined heart lung transplantation is uncertain. On one hand, the demand is likely to increase due to the ability of surgical and cardiological interventions to provide increasingly successful palliation in patients with congenital heart disease. On the other hand, the expertise in undertaking the operation is hampered by the paucity of cases and experienced teams providing this treatment. It may be advisable to concentrate this expertise in one or two centres in United Kingdom. ■

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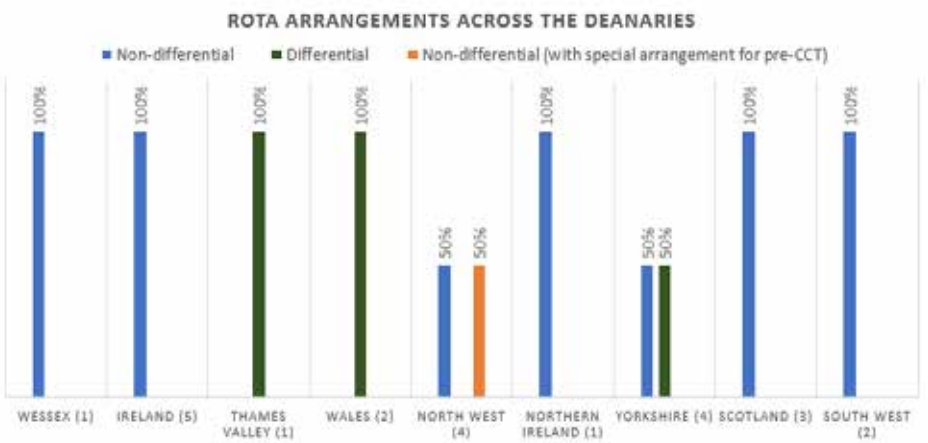
Strategies to improve cardiothoracic surgical training and mitigate impact of variable rota arrangements in the United Kingdom

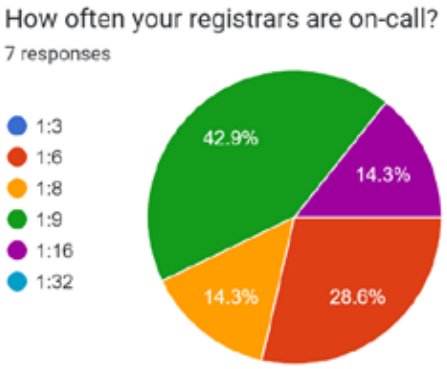
Prof Mahmoud Loubani, Consultant Cardiothoracic Surgeon, Castle Hill Hospital, Hull

Cardiothoracic surgical training in the United Kingdom (UK) is facing crucial challenges. Multiple fundamental changes in recent years have meant the same high-quality training needs to be delivered in a shorter duration. In the UK, typically, the current cardiothoracic surgical specialist training programme commences following a competitive national selection process for 'specialty training' (ST1-7) which typically lasts seven years, but can last longer if the trainee takes time out of the programme for research, experience, fellowships, or if the pursue a less-than-full-time training. Unfortunately, the COVID pandemic has complicated the delivery of cardiothoracic surgical training further by drastically impacting operative opportunities and clinical experience as well as the mental health and well-being of trainees.

The dichotomous issue of service provision versus dedicated training time has been an ongoing debate. It is a well-established fact that learning opportunities exist even whilst providing a service, but with ever-increasing pressure on the workforce due to increased admissions post-pandemic and an ageing population with increasingly complex medical co-morbidities and advanced surgical diseases subsequent impact on training is inevitable. One of the key barriers to delivery of optimal operative training has been a change from a 'firm' structure (a team of trainees working with an allocated consultant and caring for their patients only) to a shift-based rota (a team of trainees caring for patients of multiple consultants) in most cardiothoracic surgical centres that has been detrimental to the trainer-trainee relationship fundamental to surgical training and continuity of care with multiple handovers. This is compounded by a greater number of out-of-hours shifts to ensure service provision.

A recently conducted survey of cardiothoracic surgery registrars revealed that





there is a wide variation in United Kingdom with differential rota between NTNs and TADs, non-differential rota, and supernumerary arrangement for senior trainees approaching CCT as the commonly implemented rota arrangements across the deaneries.

These rota arrangements are dictated by local staffing levels as well as the number of NTNs in a particular deanery. However, these variations result in different training experiences for trainees at different regions and may disadvantage some trainees as they progress through training. It furthermore makes some deaneries more attractive and desirable than others. This is also influenced by the huge variation in the frequency of oncalls and serive provision requirement.

There is a need for harmonisation of rota arrangements to provide equity for the trainees in different programmes although it will be met by local factors and resources. However, a variety of possible strategies can be recommended to ensure that trainees in all deaneries have access to a minimum of set of standards.

Improving the trainee–trainer relationship

There needs to be a change in the trainer-trainee relationship, which, although is unlikely to ever return to days pre-EWTD, is necessary. There are a number of ways to achieve this.

There needs to be change at multiple levels including those at the level of the trust, and at the level of NHS employers. Changing the rota such that trainees spend an elective block, which is predominantly training focussed, with one trainee per supervised consultant session, is likely to help. This elective block should be free from on call commitments and would provide the consistent trainer-trainee interactions necessary for trainer-trainee rapport. Additionally, trainers need access to resources in the form of contractually-protected time with trainees, focussed training with the ISCP, and remuneration.

Extended surgical team

Rota gaps negatively impact the training-service relationship. The concept of 'Extended Surgical Team (EST)' composed of Surgical Care Practitioners, Advanced Nurse Practitioners, and Physician Associates to name a few, who are non-medical practitioners involved in pre-, intra- and postoperative care under the supervision of a consultant, is already a practical reality in several centres and minimises impact of rota gaps on training. The premise is that this team may help provide service needs allowing surgical trainees more time for training. Concerns exist amongst trainees that these new roles may further dilute their own surgical exposure especially regarding clinic and theatre time and steps should be taken locally to prevent this.

Simulation

There has been a paradigm shift in the training of surgical residents from the traditional "apprenticeship" model to a hybrid one, involving simulation training. This shift has been in response to several current challenges in surgical training, including time constraints, patient safety concerns, financial costs, decreasing durations of training programs, and impact of pandemic.

There is a pressing need to incorporate simulation-based training into existing and future cardiothoracic surgical training programs. Since mandates for quality measures and shorter training periods emerge, teaching alone, using the traditional "apprenticeship" model in the operating room, is no longer sufficient. A combination of low-fidelity simulators as well as virtual reality simulators might be important adjuncts to successful curriculum implementation. The SAC in cardiothoracic surgery can mandate simulation training for early years' trainees (ST1-ST3) with formal assessments to enable them to learn core and advanced surgical skills. Proving competency in a controllable environment may allow residents to gain autonomy in operating rooms having already negotiated a considerable portion of their learning curve. This will ensure that trainer surgeons are more at ease because trainees have demonstrated their knowledge and skills before entering the operating room.

Considering the current pressures and importance of training the next generation of surgeons, simulation represents a feasible strategy to mitigate the constraints imposed by UK-wide variable rota arrangements.

Differential Rotas

This concept allows trainees to have a different and less onerous oncall and service provision requirement on a rota to maximise their availability for training opportunities. This has been implemented in a number of deaneries and units across the country to varying degrees but can become the standard. It does however result in other doctors on the rota doing more oncalls but for more remuneration than the trainees. This is to be recognised and clearly stated when taking up posts.

Suggested Recommendations

1. To highlight the quality indicator of minimum two days operating for every trainee. This in addition to one clinic session and one MDT per week as to be clearly stated in each trainee work schedule. This should be the minimum average over one rota cycle as there will be some weeks in a rota cycle where this will not be achievable due to on call commitments/ mandatory off days. Therefore this needs to be compensated adequately when there are no on call commitments. If trainees demonstrate that this is not happening then this needs to actioned and remedied.
2. We should aspire to fulfil The SCTS Toolkit recommendation of three days in theatre for all trainees.
3. The differential rota model as a standard for all training programmes to follow for small programmes. This aims to maximise the trainees availability for training opportunities.
4. All trainees in trainees in phase 3 of training should be supernumerary shadowing a consultant on calls with an appointed consultant/supervisor to re-establish trainer/trainee relationship. Similarly ST1-2 in CTS should be on the supernumerary on the registrar rota and shadowing registrars ST3 and above.
5. Support and encourage dedicated trainee lists (with named supervisor) for trainees in their final year of training.
6. The 'elective' block may be useful however this has to be carefully managed so that extra theatre time is allocated to compensate for the oncall blocks when the trainee will not access elective theatre cases.
7. Safeguards to be implemented that the extended surgical team does not impact on training of the trainees especially during their development and training.
8. Simulation
   a. Dedicated simulation time should be included in the work schedule for the trainee (especially at ST1-ST3 level). For example, one session a week should be dedicated to simulation training.
   b. Dedicated simulation space, facilities and kit for trainees in all departments.
   c. Simulation should be objectively assessed to monitor progression. This could be a quarterly assessment by educational supervisor.
   d. Need to incentivise trainers to spend more time coaching trainees.
   e. Simulation for senior trainees – Trainees are enthusiastic for simulation at ST1-4 and then after this it wanes once trainees are doing cases. Therefore simulation needs to be tailored to senior trainees to keep engagement by raising the standards of our simulation models and set ups. ■

Endoscopic Radial Artery Harvesting
Ionescu Travelling Fellowship
Civil hospital of Brescia, Italy

Janesh Nair, Senior Surgical Care Practitioner, Wythenshawe Hospital

In front of Civil hospital of Brescia, Italy

Objectives for this fellowship were to visit the centre (Civil hospital of Brescia, Italy), where a large volume of total arterial revascularization is performed for Coronary Artery Bypass Surgeries. Typically, radial artery is harvested via the open or endoscopic method with a closed Tunnel system. At this centre, surgeons perform Endoscopic radial artery harvesting using the open tunnel system without CO2 inflation. During my placement, I aimed to learn this new system, gain a better understanding of patient selection for this technique, pre-operative assessment and learn about post-operative care for such patients. Additionally, I aimed to acquire management and organizational skills and understand the role of surgical care practitioners in a cardiac theatre in a new country/environment.

The following objectives were achieved as it was a remarkable opportunity to visit one of the leading cardiac surgical units in Italy, the Civil hospital of Brescia. During this placement, I had the opportunity to visit the pre- and post-operative ward, attend multidisciplinary team (MDT) meetings to select patients for minimally invasive cardiac surgery procedures. I observed various minimally invasive cardiac surgeries, including Mini AVR, Mini MV Repair/Replacement, and video assisted Mini MV Repair/replacement, among others. The most captivating aspect of the placement was observing Endoscopic Radial artery harvesting and Endoscopic Vessel Harvesting (EVH) techniques via the open tunnel system with Ligasure. I shadowed the consultant throughout the patient journey, from the ward to the ICU and eventually to the ward post-surgery. This was an exceptional opportunity to observe Robotic-assisted Internal mammary artery harvesting followed by Minimally Invasive Direct Coronary Artery Bypass Grafting (MIDCAB).

This Centre is renowned for its various minimally invasive cardiac surgery procedures. The surgeons and staff were exceptionally friendly. Mr Fabrizio Rosati, a consultant cardiac surgeon, supervised my placement, offering his extended support and further training if required to implement Endoscopic Radial artery harvesting and EVH techniques via the open tunnel system with Ligasure procedures in my department.

Along with this experience, I also visited the Royal Brompton Hospital to receive training on Endoscopic radial artery harvesting with the Getinge system. During this placement, I had the opportunity to follow the protocol for assessing the radial artery and the harvesting method. I performed three Endoscopic Radial Artery Harvestings under the supervision of senior surgical care practitioner, Mr Adinolfi.

This experience allowed me to learn about different techniques of minimal access radial artery harvesting. I was able to replicate the same procedure in our institute and give good results to patients. This experience helped me a lot and this will help patients have faster recovery with minimal scar. ■

Janesh Nair with his supervisor Mr Fabrizio Rosati, Consultant Cardiac Surgeon

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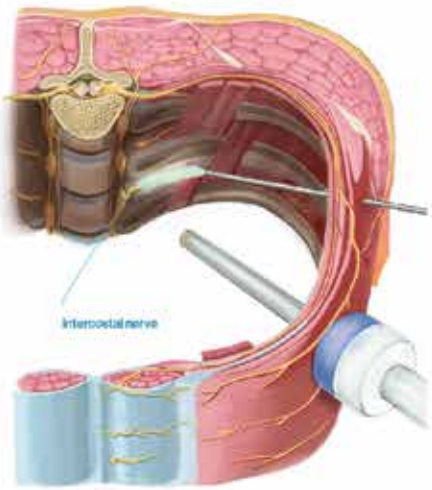
- Neurostimulation
- Use CO2 or N20



"With regard to our experience of the Metrum cryoanalgesia probe at James Cook University Hospital, we have been using this probe for at least two years [since November 2021], we now would not do any Pectus cases without cryoanalgesia.

We are now routinely also using it in robotic lobectomy and our recent trials in over 50 Patients show dramatic reduction in patient going home on opiates, reduction in hospital stay and lower pain scores.

We are so impressed that we have set up a randomised trial in these patients and received £500,000 in order to prove these findings.

The Metrum probe is the thinnest and quickest to freeze on the market and uses easy to find CO2 as its cooling gas.

And as the NHS understands the importance of this device, it is free for our department through the high value tariff scheme."

Mr Joel Dunning
Consultant Cardiothoracic Surgeon

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Helping Patient Outcomes

BVM
24 hours a day

Liverpool Heart and Chest Hospital Minimal Access Mitral and AF Surgery Fellowship 2023–2024

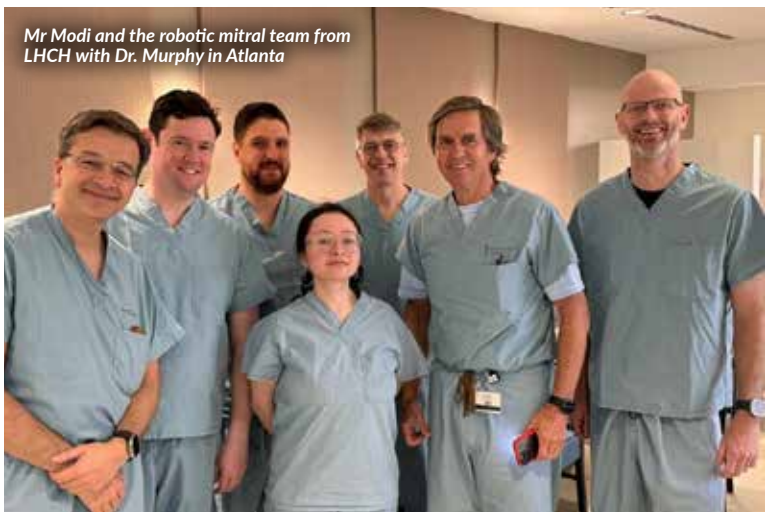
John Massey, Fellowship Liverpool Heart and Chest Hospital

I chose to pursue a fellowship after completing my Cardiothoracic training with the aspiration to acquire specialised skills, improve patient outcomes, engage in research, and benefit from mentorship and networking opportunities. Firstly, I had to decide which aspect of cardiac surgery I was most passionate about and where I thought I could learn a new skill to enhance patient care.

As a trainee, I have been fortunate to spend time working for a number of excellent mitral valve surgeons and have observed a range of surgical techniques employed to manage mitral valve pathology. As a consultant I want to offer my patients the best possible surgical procedure and for me it is clear that minimal access techniques should be available to all patients. The advantages garnered by limiting surgical trauma, through minimised incision size and avoidance of rib-spreading, include shorter hospital stays, reduced pain, quicker recovery times, and lower risks of infection and complications. Wanting to achieve this level of proficiency myself, I knew it was essential to spend a period of time immersing myself in the world of mitral surgery. This is why I sought out the opportunity to work at Liverpool Heart and Chest Hospital (LHCH) with Mr Paul Modi, to be mentored in minimal access mitral valve surgery.

On starting the fellowship I quickly realised that learning minimal access surgery is a divergence away from standard cardiac surgery and as such required me to return to the basics. As with learning any new procedure, it was important to perform it frequently under the guidance of an experienced mentor. Working in Liverpool, I was involved in on average two to four mini mitral cases per week and Mr Modi and his team have experience of over 600 minimal access procedures. Having a group of anaesthetists, surgical care practitioners, scrub nurses, circulating nurses and perfusionists with expert experience in mini-mitral surgery has meant I have been well supported in gaining the skills I needed to become competent in mini mitral surgery.

Me preparing to start a minimal access procedure with the team at LHCH. Note the use of Bluetooth headsets to improve communication



Mr Modi and the robotic mitral team from LHCH with Dr. Murphy in Atlanta

The first step was to learn how to optimally position the patient followed by peripheral cannulation through the femoral vessels. The second step was to access the heart through a mini thoracotomy, place the camera port and the diaphragm stitches. The techniques for repairing the mitral valve were reinforced through performing open mitral repairs. In particular, I learned mitral valve repair using a blend of techniques across all valve pathologies from fibroelastic deficiency to Barlows, from single segment to multi-segment prolapse, from standard resectional techniques, to the novel hemi-butterfly, to the Leipzig Loop Technique. By the end of the fellowship, I am now competent to set up a mini-mitral operation and safely and confidently repair the mitral valve. I am also proficient at performing a left atrial cryomaze with 4 applications of the cryo probe.

In addition to mini-mitral surgery, I was also fortunate to be part of the robotic mitral team. We visited two hospitals in the USA to enhance our


The mitral team from LHCH at an Atlanta Falcons NFL game

experience in robotic mitral surgery. We visited Drs Didier Loulmet and Eugene Grossi at NYU Langone. The efficiency with which the team worked was definite food for thought in improving our practice, as they were able to complete two robotic mitral repairs per day. We then visited Dr Douglas Murphy at St Joseph's Hospital, Atlanta. Seeing the success and sophistication of two successful robotic mitral valve surgery programmes was highly inspiring. It has motivated me to pursue further specialisation in robotic cardiac surgery.

Whilst the aim of the fellowship was to gain skills in minimal access surgery, I also had the opportunity to be involved in other advanced surgical techniques to treat mitral pathology. As the mitral fellow, I was involved in starting the TAVI in MAC programme. Together with Mr Modi and Mr Soppa, we hosted Mr Trivedi (Royal Sussex County Hospital) who proctored the team in this new procedure. This was a fantastic opportunity to be involved in a new technique to treat severe mitral stenosis in patients who may have been deemed inoperable via standard techniques.

During the fellowship, I also became involved in a number of academic projects. Working with Mr Modi has allowed me to publish four first author articles in 10 months in peer-reviewed journals on techniques for performing minimally invasive and robotic mitral surgery. I have attended and presented data from LHCH at the annual International Society for Minimally Invasive Cardiac Surgery meeting, the Mitral Conclave, the British and Irish Society for Minimally Invasive Cardiac Surgery and the annual SCTS meeting.

I feel my time spent at LHCH being mentored by Mr Modi has been a huge success. Professionally I have gone from a general cardiac surgeon to a specialist minimally invasive mitral surgeon. I am now able to offer expert mitral surgery to my patients. This has been validated by my appointment as a substantive Mitral Surgeon in Castle Hill Hospital. My hope is that I can be instrumental in setting up a minimally invasive mitral surgery programme in the East of Yorkshire all of which would not be possible without the skills learnt whilst at LHCH.

I would like to thank Mr Modi, Mr Shanmuganathan and Mr Soppa for mentoring me throughout the fellowship. I would also like to thank all the staff at Liverpool Heart and Chest Hospital, and Edwards Lifesciences for funding the fellowship. For any trainees interested in minimally invasive mitral surgery I can highly recommend getting in contact with Mr Modi (**paul.modi@lhch.nhs.uk**) or for more information on the fellowship (**john.massey@nhs.net**). ■

Standing upon the shoulders of giants – my fellowship at the Mayo Clinic, Rochester

Jonathan Afoke MD FRCS, Hypertrophic Obstructive Cardiomyopathy Fellow, Mayo Clinic, Rochester

My association with the Mayo Clinic goes back nearly 20 years – I was planning my medical student electives and a friend suggested going to Mayo. I remember my father asking where it was and after looking on the internet we discovered it was in Minnesota. His words of wisdom were – that's where MacGyver is from and you'll need a warm hat. I had a wonderful time following Dr Rocky Daly who subsequently mentored me throughout my surgical training and kindly facilitated applying for an advanced fellowship at Mayo after I reached CCT.

I initially expressed interest in the robotic mitral program, but there was no vacancy, so had a conversation with one of my UK mentors, Mr Jon Anderson who asked me who has really taken an interest in training you? I enjoyed my time rotating with several of the faculty, but the person who really inspired me was Dr Hartzell Schaff and he agreed to take me under his tutelage.

Hypertrophic obstructive cardiomyopathy has an estimated prevalence of 1 in 500 and surgical myectomy is regarded as the gold standard treatment. In experienced centres, the mortality is less than 1% which is superior to alcohol septal ablation, the procedure abolishes left ventricular outflow tract obstruction and restores survival near the normal population. Although mavacamten has changed the treatment paradigm, in the EXPLORER-HCM trial, 41% patients were excluded and only 37% (versus 17% in the placebo group) met the modest primary endpoint of an improvement of 1.5 ml/kg/min and one NYHA class reduction, or an improvement of 3.0 ml/kg/min at 30 weeks treatment.

>>

Operating with Dr Schaff aka "The King"

Going for a "Greason Burger" with colleagues

In my HOCM fellowship, I saw nearly 100 cases with Dr Schaff and Dr Joseph Dearani covering all combinations of zones 1, 2 and 3 pathology including multilevel obstruction, latent obstruction from mid-cavity HOCM and apical HOCM which are treated with a trans-apical approach – a procedure developed by Dr Schaff and not available in the United Kingdom. I was also fortunate to see a case of right ventricular HOCM with Dr Elizabeth Stephens. The patient population ranged from the paediatric population and the oldest patient was 84 years. It was a unique apprenticeship to be taught how to assess the history and imaging, the physiological principles, intra-operative assessment and decision making and the technical tips of the transaortic and transapical approaches.

I had often heard about the technical skills of Dr Schaff, but it was quite an experience to be trained by him, from making my stitching and knot tying more efficient, to tips on coronary and aortic valve work, and learning some of his secrets on carcinoid surgery and mitral repair. I felt truly privileged to be Dr Schaff's last HOCM fellow.

One reflection I have had is that we are well trained in the United Kingdom and it made me appreciate the work on defining a case, case requirements for CCT and development of the SCTS curriculum courses – educational advances that I was fortunate to see first hand in my time as trainee representative. There is no agreed definition of a case in the United States and this leads to heterogeneity in training standards. Other clinical highlights included spending time with Dr Joseph Dearani for complex grown up congenital cases and the Cone procedure for Ebstein anomaly and Dr Malakh Shrestha for valve sparing root replacement and the frozen elephant trunk.

A great advantage of a place like Mayo is the wealth of clinical data and research support that is available. It takes a while to get traction involving institutional review board approval to working out who has the data set and the long trawl of collecting data from the electronic charts, but I was able to set up my own exercise physiology research team with a number of surgical residents under the supervision of Dr Thomas Allison. So far, we have been able to get abstracts at the STS, SCTS, ACC and ESC meetings and still have more work in progress.

Hopefully this fellowship represents the end to my training, but not my learning; it does often feel like "The Road goes ever on." I am very grateful to SCTS and Ethicon for the scholarship – there are numerous expenses associated with doing a fellowship abroad.

It was an opportunity to form lifelong friendships with colleagues from across the world, in particular Gabriel, Choi, Akshay, Ravi, Taka, Camillo, Brandon and Myriam. We managed to go to the local Red Cow for a regular catch up and named it "Going for a Greason burger" in honour of the program director. There are too many trainers to thank, but a special mention to Mr John Smith, Professor Marjan Jahangiri, Mr Pankaj Kaul, Mr Neil Roberts, Mr John Yap, Professor Prakash Punjabi and Mr Jon Anderson from the UK; and Dr Rocky Daly, Dr Juan Crestanello, Dr Joseph Dearani, Dr Malakh Shrestha and Dr Hartzell Schaff from Mayo. We should never forget how important our families are to give us balance and I would not have made this journey without my late father Yvan and my wife Antonia. ■

Meeting mentors past and present

Ionescu Trust Appointed Doctors Small Travel Awards 2021 to visit Surgeons with Focus on Minimally Invasive Cardiac Surgery

Benjamin Omoregbee, Cardiothoracic Surgery Trust Grade Senior Registrar, European Interbalkan Medical Centre, Thessaloniki, Greece

I became interested in minimal access cardiac surgery in 2017 when I worked with Mr Inderpaul Birdi at Basildon University Hospital. It was exciting to see cardiac surgery being performed with smaller incisions and even with sternal-sparing approaches. I knew this could be the future of cardiac surgery with the ever increasing technological advancement.

I had met Mr Joseph Zacharias (Consultant Cardiac Surgeon at the Blackpool University Hospital) at one of the British and Irish Society for Minimally Invasive Cardiac surgery (BISMICS) meetings and he is known to have a high volume minimally invasive surgery practice in the United Kingdom. I approached him for the opportunity to visit his centre to observe and learn his techniques and management of minimal access surgery, which he gladly accepted. I visited Blackpool in early 2023 and learnt a few lessons from Mr Zacharias:

1. Minimally invasive cardiac surgery is not an easy path to follow as the learning curve can be steep, would take a lot of personal investment and could be fraught with lots of anxiety and stress.

2. But ultimately this would lead to great patient gratitude and personal professional fulfilment.

Mr Zacharias introduced me to Dr Antonios Pitsis (Consultant Cardiac Surgeon and Head of Cardiac Surgery, European Interbalkan Medical Centre, Thessaloniki, Greece), who kindly invited me to visit his centre. He is one of the foremost endoscopic cardiac surgeons in the world.

I visited the European Interbalkan Centre, Thessaloniki in the summer of 2023. The weather was great and the city was beautiful. Mr Pitsis received me warmly and I was treated as part of the team. The usual day started with the intensive care rounds with review of postoperative patients, then we had a preoperative discussion of the day's operative cases and then straight to the operating theatres. During my fellowship, I scrubbed daily in all the endoscopic surgeries performed covering a wide range of structural heart valve disease (aortic valve replacement, mitral valve repair and replacement, tricuspid valve repairs and adult congenital disease repairs) as well as different types of surgeries for treatment of atrial fibrillation. It was indeed the 'Full Monty' of Advanced Cardiac Surgery.

My main focus beyond learning the perioperative principles and surgical techniques was to understand the evidence for minimal access cardiac surgery, how to set up a sustainable minimal access cardiac programme and team, and how to manage difficult situations.

With Mr Joe Zacharias

With Dr Antonios Pitsis

I attended the EACTS Minimally Invasive Techniques in Adult Cardiac Surgery (MITACS) Course in Leipzig in late 2023 where I interacted with leading world faculty in the field, gained extensive understanding of the key elements of minimally invasive cardiac surgery, the evidence supporting minimally invasive cardiac surgery and experienced live surgical procedures with demonstration of key technical steps for a successful minimally invasive cardiac procedure.

The Society of Cardiothoracic Surgery in Great Britain and Ireland (SCTS) has been very kind to select me for this award which has made these achievements possible. I am immensely grateful for this opportunity and I look forward with great determination as I continue on my minimally invasive cardiac surgery journey. ■

SCTS HRUK travelling fellowships 2023 – Medical student elective report Cleveland Clinic, Ohio, USA

June 12th 2023 to July 7th 2023

Ujjawal Kumar, visiting medical student on a medical elective with Dr Daniel Burns and Dr Marc Gillinov of the mitral valve surgery service, Cleveland Clinic, Ohio, USA

Having decided to pursue a career in cardiothoracic surgery, I wanted to spend my medical elective in the USA at leading cardiothoracic centres. Certain aspects were similar to experiences I have had on medical school rotations at Royal Papworth Hospital with Mr Aman Coonar, Mr Narain Moorjani and Mr Shakil Farid. However, a rotation at the world-leading Cleveland Clinic offered the opportunity to learn about the newest innovations and technological advancements in the field at an international centre of excellence. I spent the first four weeks of my elective as a visiting medical student with Dr Marc Gillinov and Dr Daniel Burns who run the Clinic's pioneering mitral valve and robotic mitral valve surgery programs, kindly supported by an SCTS Medical Student Travelling Fellowship.

I was based at the Sydell and Arnold Miller Family Heart and Vascular Institute, the glittering jewel in the crown of the Cleveland Clinic's global system, including newer sites in London and Abu Dhabi. Its staff make up one of the largest, most experienced cardiac and thoracic surgery groups in the world, with the Department of Thoracic and Cardiovascular Surgery caring for patients from all 50 states of the US and around the world, running around 30 operating rooms daily, with over 100 dedicated cardiothoracic ICU beds, and each surgeon typically completing over 500 cases per year. I was particularly keen to visit this global centre of excellence for heart valve surgery, which boasts impressive results that contribute to its consistent global number-one ranking for cardiac care:

- 4200+ consecutive MV repairs without an operative death (as of Feb. 2023), a mortality-free stretch dating back to 2014
- Repair rate of 99.4% for degenerative MV disease with minimal residual mitral regurgitation
- Over 1000 mitral valve surgeries per year

The Cleveland Clinic Sydell and Arnold Miller Family Pavilion, where the Department of Cardiac Surgery is based within the Heart, Vascular and Thoracic Institute

I was able to fully integrate with the surgical team in all aspects of cardiothoracic surgery from outpatient clinics and preoperative assessments to time in the operating rooms, to following the patient journey during their postoperative stay in the ICU or the wards. Most importantly, I was able to learn about not only the procedural details of specialised aspects of mitral valve surgery but a thorough understanding of the principles of minimally invasive and robotic surgery. I was also able to learn about the patient selection process for robotic mitral valve surgery, a topic I presented at the 2024 SCTS Annual Meeting.

Four days a week were typically spent in the operating room, with one day spent in outpatient clinics and on research activities. The day would start around 5 am for the rounds of ICU and the ward, and then each "team" (mitral, aortic, coronary, transplant) had a daily morning case conference where each surgeon would present the day's cases for multidisciplinary discussion. After that, we would go to either the clinic or the theatre, where we'd be for the rest of the day.

I was able to learn from world-leading surgeons in their fields, which was an unforgettable experience, given

that these surgeons regularly achieve some of the best outcomes globally. Additionally, I was able to gain experience in two high-output surgical centres where each surgeon completes upwards of 500 operations a year, which of course has multifactorial causes. This experience gave me insights into the operational/logistical details that enabled the system to be highly efficient, which I hope may apply to my future career to maximise the value and efficiency of my practice. I was also able to gain experience in technological advancements such as minimally invasive and robotic cardiac surgery – importantly I was able to learn about the assessment for robotic surgery compared to standard open surgery, and the principles of starting an innovative surgical programme using new technology such as this.

One of two DaVinci Xi Robotic Consoles in the Robotic Mitral OR – Dr Gillinov or Dr Burns would operate one, and the robotic fellow, (Mr Moby Rehman, now Consultant Cardiac Surgeon at the Royal Brompton) would operate the other, having set up the case

I was also able to spend some time in the catheter laboratory, where most cardiac surgeons will have some involvement in percutaneous valvular procedures such as TAVI or TEER (e.g., MitraClip). Surgical involvement in transcatheter programmes meant that the heart valve team was a much more unified, multidisciplinary service than what is often seen in the UK, and ultimately results in improved outcomes. It also meant that surgical residents and fellows gained much better "wire skills" than colleagues in centres where surgical involvement in the cathlab is minimal, benefitting them when such skills are vital e.g., in peripheral cannulation for minimally invasive surgery.

Lastly, the opportunity to interact with, and get career advice from distinguished surgeons, as well as fellows from all over the world was an invaluable experience. My experience at the Cleveland Clinic was an incredibly inspirational, life-changing experience, and I cannot thank the SCTS and Heart Research UK enough – it would not have been possible without this travelling fellowship award. ■


With Dr Daniel Burns, Staff Cardiac Surgeon at the Cleveland Clinic

Fellowship Placement – Papworth Hospital

Sean Pattinson, 4th Year Medical Student (at time of fellowship), Newcastle University

I undertook my Ionescu fellowship at the Royal Papworth NHS trust as a four-week elective placement. My intentions of the placement were to gain an insight into the specialist services Papworth offers, including Pulmonary Thromboendarterectomy (PTE) surgery, Transplant and specialist thoracic services. I was kindly supervised by Mr David Jenkins. My time at Papworth included not only cardiothoracic surgical exposure but preoperative and intensive care experience.

A new technology: This image illustrates a new technology being investigated to assess coronary perfusion at the time of bypass grafting.

Within my time at Papworth, I was exposed to all areas of cardiac and thoracic surgery and spent time in specialist clinics. I managed to join the specialist PTE nurses who saw all pre- and post-operative PTE patients. In this time, I saw first-hand the impact of the disease and the lifechanging results from the procedure.

I was fortunate to be able to see both lung and heart transplant procedures during my placement and spent time with the transplant medical team seeing these patients pre and post operatively. The team at Papworth utilise ECMO which is something that I had not seen be used in clinical practice before.

PTE surgery was something I particularly took an interest in during my placement, and I then took this interest forward into my intercalated degree the following academic year and undertook my dissection module with a focus on PTE surgery.

I would like to thank SCTS, the late Mr Ionescu, Mr Simon Kendall and Mr David Jenkins for their generosity and support with this fellowship. ■


Results: Scar tissue removed from the pulmonary arteries from a patient undergoing PTE surgery

Obituary:
Fayek Dimitri Salama (1935 – 2023)

Ellis Morgan, John Duffy

Fayek Salama was born in 1935 in Cairo. At the age of 23 he qualified MB.ChB. from Ain-Shams Medical School, Cairo where he remained through the early 1960s completing the Diploma in Surgery before choosing to specialise in Thoracic Surgery. In 1967, he moved to the UK where he continued his training in Cardio-Thoracic surgery with appointments as registrar at Hawkmoor Hospital, Devon, Broomfield Hospital, Essex and Shotley Bridge Hospital, Newcastle where in 1969 he qualified FRCS at both the London and Edinburgh colleges. From 1970 to 1975 he was senior registrar at the Westminster Hospital and then at St. George's Hospital, London and the Western Hospital in Southampton.

In 1976 Fayek was appointed Consultant in Thoracic Surgery at the City Hospital in Nottingham where he worked up to his retirement. The unit served the East Midlands with clinics at Nottingham, Boston, Lincoln, Mansfield and latterly Derby. Fayek was a gifted technical operator but above all he was dedicated to the care of his patients checking daily on their progress even when supposedly on a weekend off. Much to the frustration of hospital managers he insisted on continued long term follow up of his patients providing much-appreciated support (and real long-term outcome data). He had a particular interest in the surgical management of oesophageal problems, especially anti-reflux surgery. The Thoracic Unit at Nottingham became one of the leading oesophageal surgery centres in the UK. He was instrumental in setting up one of the first oesophageal function services and was an early member of the British Oesophageal Group.

He was a supportive trainer helping trainees to develop their surgical skills particularly in oesophageal surgery and many of his trainees became consultant surgeons in the UK.

Fayek loved his work and did not relish the approach of retirement, fortunately he had many interests outside of medicine to keep him busy. He had been a keen tennis player in his youth (captaining the university tennis team) and later enjoyed hillwalking holidays in the Lake District. On moving to the UK, he learnt the finer points of cricket from his boss Jack Griffiths, Thoracic Surgeon at Hawkmoor Hospital, and continued to follow the game becoming a member of Nottinghamshire Cricket Club where he would often be seen in the member's enclosure at the Trent Bridge Ground. His main sporting passion however was watching F1 motor racing. He had a passion for Alfa Romeo cars especially his 1969 racing green classic Alfa which he proudly drove in the annual European Classic Car Rally, when he could also indulge another great love – good food and good wine. Fayek was an accomplished photographer with his own dark room for developing; he specialised in black and white landscapes and some of his photos were published in the Telegraph newspaper, Photographic Yearbook, and selected for 1985 Sunlife Assurance calendar. In retirement he mastered the switch to digital photography and was an active member of the Nottingham and Notts Photographic Society.

Above all these interests Fayek's great love and support was his family, wife Diane and daughters Emma and Lisa, and his family in Egypt with whom he kept in regular touch. Over many years they shared his many enthusiasms and were there providing loving support during his final illness from complications of diabetes and COPD. He died on 22nd May 2023. Fayek will be remembered for his warm personality, a wholehearted man he enjoyed company and was a generous host; at work he was a hardworking surgeon dedicated to the care of his patients – Nottingham was fortunate. ■

"Fayek was a supportive trainer helping trainees to develop their surgical skills particularly in oesophageal surgery and many of his trainees became consultant surgeons in the UK."

Demitted Roles

Thank you to the following for the time and commitment they gave to their roles ...

Role	Name
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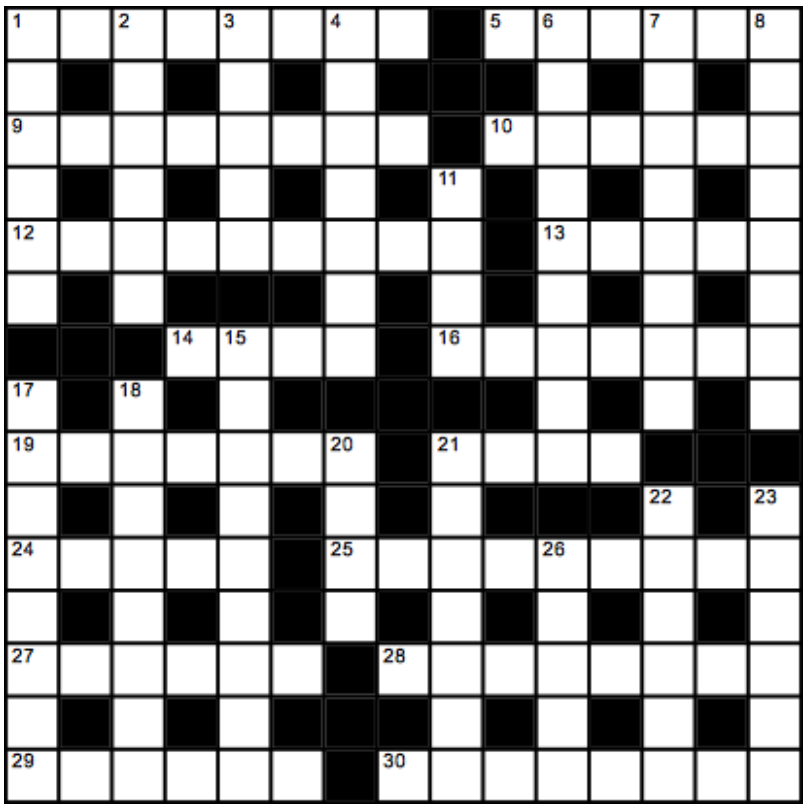
SCTS Thoracic Surgery Deputy Chair	Rory Beattie
SCTS NAHP Sub-committee Co-Chair	Amanda Walthew
SCTS Adult Cardiac Surgery Deputy Chair	Hari Doshi

Crossword

Set by Samer Nashef



Across

1 Lock in shed if leaving hotel under pressure (8)
5 Sets right parting? (6)
9 Balance without a prompt (8)
10 Viciously criticise wise one penning bible (6)
12 Picture awful scandal if seen with prostitute on vacation (9)
13 Doctor provided tablets at first move (5)
14 Pay attention getting addendum by saint (4)
16 Chorus resigns in disarray (7)
19 Return of slayer of beasts (7)
21 Fusses about drink (4)
24 Notes magnitude of climb (5)
25 Let casino get built by the water (9)
27 The end of Epping Forest is a place for plants (6)
28 Many years when fruit contains within it iron (8)
29 The woman set out the linen (6)
30 Backed into a corner, ever seductive (8)

Down

1 Quiet small stream not at all quiet (6)
2 Book wherefrom answers framed (6)
3 Being 16, they would produce these kisses with no upset (5)
4 Well-dressed member, neat fancy clothes (7)
6 Left over in an ensemble (9)
7 I am a soldier Edward fancied (8)
8 The ultimate in diabetes urinalysis having most sugar (8)
11 Buzzers used in sex education part II (4)
15 New Testament declaration (9)
17 Texts in corridors (8)
18 Take a different view from 'Greenland is a green land' (8)
20 Rifle fire (4)
21 Terrible disease in holiday venue (7)
22 Many a bone is a bit broken (6)
23 Story of foot? (6)
26 Word of comfort when repeated, but not here (5)

Please email solutions by 04/10/24 to:

emma@scts.org ***or send to Emma Piotrowski, SCTS, 38-43, Lincoln's Inn Fields, London WC2A 3PE***

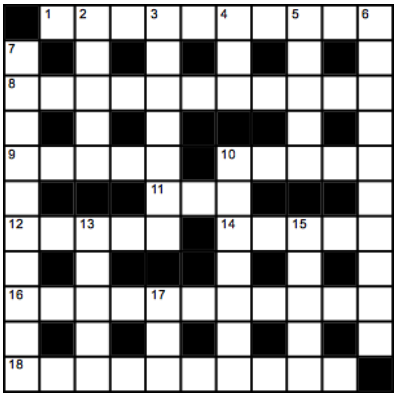
The winner will be randomly selected from successful solutions and will win either a bottle of 'fizz' or fine olive oil.

Congratulations to Bao Nguyen for winning the January 2024 Bulletin crossword competition (right) who chose a bottle of fine olive oil as their prize.

Sudoku

5	3		9					
		9	1	4				
7					8			
	9	3						
			5			8		
	8			2		9		
	2				9			1
				6	2		4	
		7			1	6		

Quick Crossword



Across

1 Audience (10)
8 Alliance (11)
9 Elite (5)
10 Boo-boo (5)
11 Everyone (3)
12 Footwear (5)
14 Santa's helpers (5)
16 Able to think outside the box (11)
18 Reinforce (10)

Down

2 Money holder (5)
3 Movie theatres (7)
4 Atmosphere (3)
5 Different (5)
6 Stifled (10)
7 Interplanetary craft (10)
10 Chic (7)
13 Academic position (5)
15 Sound (5)
17 Pub (3)

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INSPIRIS RESILIA*
aortic valve

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* No clinical data are available that evaluate the long-term impact of RESILIA tissue in patients. Additional clinical data for up to 10 years of follow-up are being collected to monitor the long-term safety and performance of RESILIA tissue.

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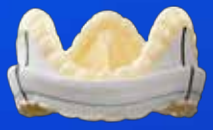
IMPLANT WITH EASE

The Epic™ Max design was engineered to allow maximum flexibility and easy passage through all anatomies.



The adaptive cuff is designed to prevent paravalvular eaks by sealing in all planes and minimizes parachuting resistance when delivering the valve onto the annulus.

10-YEAR DURABILITY

Epic™ Supra Valve
Freedom From All-Cause Reintervention[2]

Epic™ Supra Valve
Freedom from SVD (Structural Valve Degeneration) All patient age[3]

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