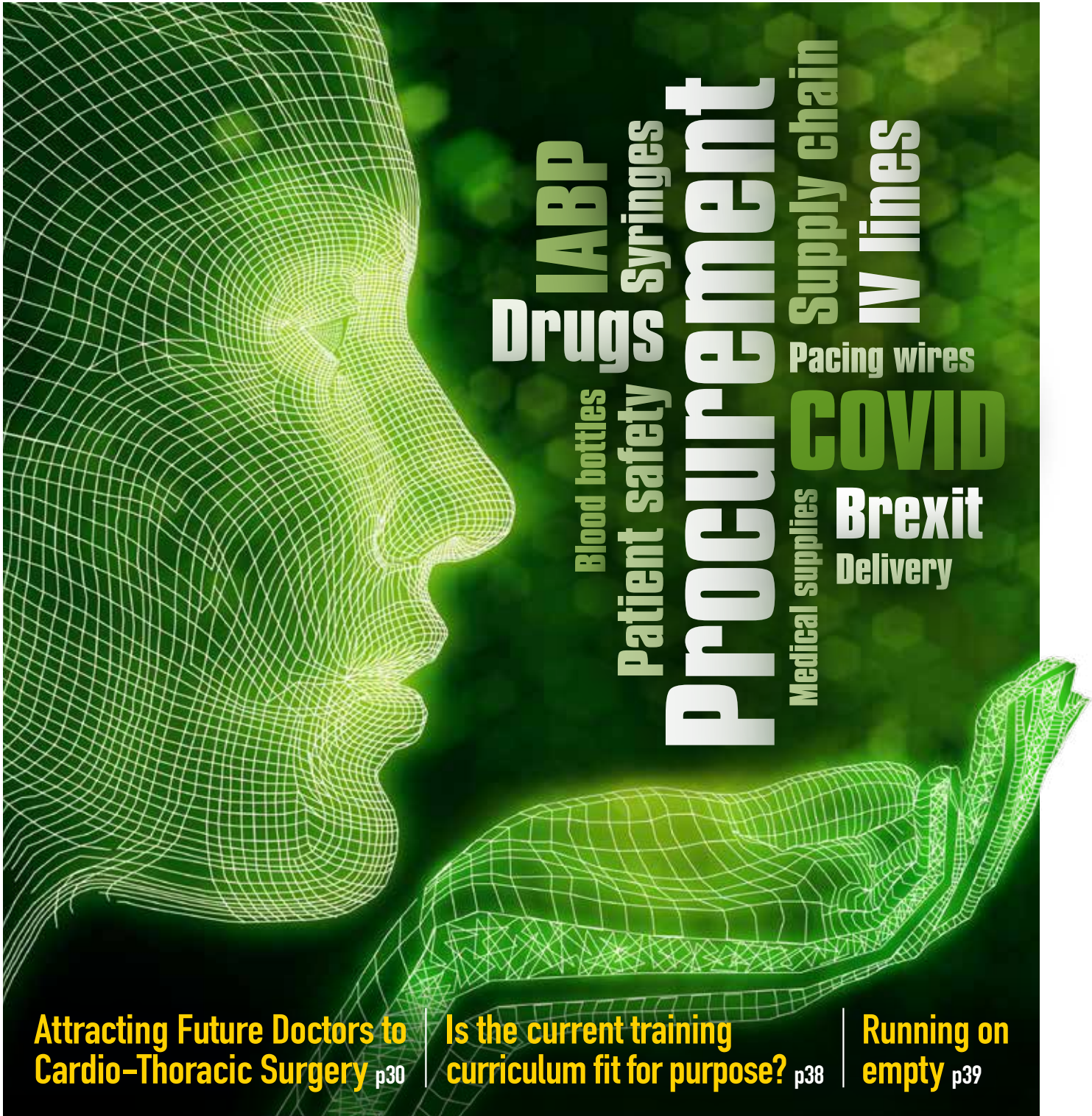




the **bulletin**

*Society for Cardiothoracic Surgery
in Great Britain and Ireland*



Drug
IABP
Syringes
Blood bottles
Patient safety
Medical supplies
Procurement
Supply chain
IV lines
Pacing wires
COVID
Brexit
Delivery

**Attracting Future Doctors to
Cardio-Thoracic Surgery** p30

**Is the current training
curriculum fit for purpose?** p38

**Running on
empty** p39



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Edwards

From the Editor

Indu Deglurkar, Publishing Secretary, SCTS



“A crisis is an opportunity riding a dangerous wind.”

– A Chinese proverb

As I pen my ninth editorial, I reflect on the stellar teams that I work with, and the articles submitted that reflect these difficult and changing times. In this edition, our President Narain Moorjani, describes projects and initiatives launched for 2023 with a focus on SCTS databases for benchmarking, research, education and the constitutional changes to increase the representation of the non-consultant cardiothoracic surgical practitioners in the SCTS Executive. Rana Saeed, in his report, discusses the increasing pressures to maintain activity, manage waiting lists safely and the need to support each other.



Mr Narain Moorjani, SCTS President, addressing the delegates at the Plenary session of the 2023 SCTS Annual Meeting at ICC Birmingham

“Series of disruptions have revealed the lack of resilience in the nation’s medical product supply chain and the global interdependencies. Creative thinking and a review & reform of NHS procurement following the pandemic will prove helpful in building a lasting agility in the system.”

During COVID, we grappled with the shortages in PPE and gowns which were required urgently. This has now been replaced with chronic shortages of wide array of medical, pharmaceutical and equipment, from blood bottles, cannulae, valves, IABPs to defibrillators required for safe clinical practice.

The National Health Service spends approximately 34 billion annually on procurement. The NHS supply chain delivers 35 million lines of picked goods and the system consolidates orders from 930 suppliers. Procurement excellence is defined by people, process, technology, and supply chain. The scarcity of the components, backlog at ports, transportation glitches, lockdowns has disrupted the supply chain and impacted on patient safety placing a huge onus

of responsibility on the operating surgeon. Series of disruptions have revealed the lack of resilience in the nation’s medical product supply chain and the global interdependencies. Creative thinking and a review & reform of NHS procurement following the pandemic will prove helpful in building a lasting agility in the system. Stock piling is not an option for the wide array of products required and no short-term fixes exist. These issues are illustrated in Chris Efthymiou’s article “Running on empty” as we continue to grapple with the shortages and balance patient safety.

Tim Jones’s update indicate that a new curriculum will come into force in August 2023 and the upcoming legislative changes around CESR entry into the Specialist Register. A number of other articles contain important information and initiatives for the membership.

Tributes have poured in for Mubarak Chaudhry, a respected surgeon and member of SCTS on his sudden demise. The Cardiothoracic community reach out to his family, friends and the entire Unit in Hull to offer our heartfelt condolences.

Finally, I would like to thank the editorial team, Emma Piotrowski, Maika Jimenez and Open Box Media for their unstinted support as always. ■

From the President

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



It was great to see so many familiar faces at the recent SCTS Annual Meeting in Birmingham. With over 1200 delegates and exhibitors attending, it was amazing to see the positivity and the excitement of everyone present. Congratulations to the whole meeting team (Cha, Sunil, Carol, Daisy, Nisha, Emma and Maika) for delivering a fantastic conference and we look forward to next year's event in Wales.

At the meeting, the Society set out some of the exciting projects and initiatives for the year ahead, including the adult cardiac surgical database, which will allow the members to take back control of the data of all the operations that are performed around the country. It 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 members and their units, as well as the SCTS, to develop nationally-driven audit projects to allow us to determine current national cardiac surgical practice but also to identify best practice and improve the care that we offer to patients undergoing surgery. Once set up, this project will also be expanded to thoracic surgery and congenital cardiac surgery.

In the second plenary session at the Annual Meeting, the SCTS launched its other major focus for the year on SCTS Research. The British and Irish Cardiothoracic Surgical community is uniquely placed to be able to deliver large

multi-centre trials through collaboration of all the units, following on from the great success of many recent UK-centred prospective randomised trials, such as the VIOLET Trial and the UK Mini-Mitral Trial. The SCTS Research-led Priority Setting Partnerships have agreed on the research priorities of the specialty and there is a great opportunity for the UK cardiothoracic community to participate in high-quality research with the potential to influence directly the clinical care we deliver. We would encourage all members of the cardiothoracic surgical community to contribute to clinical research to ensure that the specialty evolves, with principle of 'a patient for every trial and a trial for every patient'.

“At the meeting, the Society set out some of the exciting projects and initiatives for the year ahead, including the adult cardiac surgical database, which will allow the members to take back control of the data of all the operations that are performed around the country.”

The third plenary focussed on the evolution of SCTS Education over the past 10 years, as well as an insight into some novel ways of delivering education for the future through virtual reality and artificial intelligence. The SCTS Education Sub-committee continue to deliver an amazing portfolio of educational resources, including all the training courses and travelling fellowships that are being offered to all cardiothoracic surgical practitioners. These educational offerings are unique amongst all surgical

specialties in the United Kingdom. More recently, the team have developed a bespoke programme of training courses for the ST4 thoracic-themed NTN, as well as an ever-expanding portfolio of courses for Trust Appointed Doctors to address differential attainment and provide equality of access to education resources. The team are also developing a number of specialist post-CCT fellowships, in conjunction with the Royal College of Surgeons, to help bridge the gap from completion of training to commencing consultant practice. In parallel, the SCTS is developing initiatives to support its Outreach and Widening Participation programme and Sustainability in Cardiothoracic Surgery.

The SCTS has also been working hard on lobbying NHS England on a number of issues. Further to the NHS England position statement (published 1st February 2023) on the use of transcatheter aortic valve implantation (TAVI) for intermediate- and low-surgical risk patients as an interim measure to alleviate the pressures on local systems, the SCTS has

had the opportunity to meet with the National Clinical Director for Heart Disease and members of the NHS England Cardiac Services Clinical Reference Group (CRG). Following discussions, it became clear that the position statement was initially drafted at the height of the COVID-19 pandemic in 2021 and yet only released in early 2023. The SCTS firmly believes that the NHS England interim position statement is inappropriate in the current climate and has asked NHS England to revoke the statement.

Furthermore, we have strongly encouraged the NHS England team to provide additional resources to help units tackle cardiac surgical waiting lists through ring-fenced ITU beds, surgical hubs, additional staffing, and waiting list initiatives. At the meeting, it was agreed that a robust, quorate, aortic valve multi-disciplinary meeting should be employed for patients at clinical equipoise between TAVI and surgical aortic valve replacement (SAVR) and that clinical decisions made in a patient's best interest in line with national guidelines should not be altered solely based on waiting times, given that in many hospitals waiting times for TAVI are longer than for SAVR.

The SCTS has also been addressing supply issues faced by our members, particularly in relation to the procurement of components for cardiopulmonary bypass and valve prostheses. Whilst some of this is related to global supply chain issues caused by Brexit and geopolitical turbulence impairing access to raw materials, there are also challenges to bringing alternative products to market because of compliance and regulatory delays. We have been collaborating with industry partners to mitigate these problems and are lobbying at the highest levels of NHS England to help alleviate these supply chain issues. An acute example of this is the supply of intra-aortic balloon pump catheters, which have additionally been disrupted because of safety concerns, following the Field Safety Notice issued by Getinge related to their sheath vessel dilator. The SCTS, in collaboration with the British Cardiovascular Intervention Society (BCIS), Society of Clinical Perfusion Scientists (SCPS) and NHS England, have been working hard with NHS Supply Chain to ensure access to IABP catheters during these challenging times.

As you will have seen over the past few months, significant progress has been made



in terms of caring for patients with pectus deformities of the chest. Following the SCTS Best Practice in Pectus Event at the Royal College of Surgeons of England in February, NHS England have finally agreed to start commissioning surgery for patients with very severe pectus excavatum, initially through a single national centre (St Bartholomew's Hospital, London) with commissioning for a 2nd national centre underway. Whilst this is still a long way behind the services offered in Scotland, Wales and Northern Ireland, it at least gives hope to the many patients suffering with the condition in England. Alongside this, national clinical pathways are being developed, joint society best practice guidelines have been written, incorporating the holistic care of these patients, and a prospective randomised clinical trial is being submitted to NIHR to assess the efficacy of surgery for those with severe pectus excavatum.

At the most recent SCTS Annual Business Meeting, many of you will have seen that following extensive consultation the Society was given approval for its changes to the SCTS Constitution to increase representation of non-Consultant cardiothoracic surgical practitioners within the SCTS Executive, with appointment of an Nurse and Allied Health Professional

(NAHP) Trustee (to be voted by NAHPs), Trust Appointed Doctor (TAD) Trustee (to be voted by TADs) and Nationally Appointed Trainee (NTN) Trustee (to be voted by NTN), as well as the Communication Secretary to become an Appointed Trustee. We will be working with our charity lawyers to publish the new SCTS Constitution and bring these changes into effect.

Finally, I'd like to say a few words about Mubarak Chaudhry, a dear friend, who sadly passed away unexpectedly in June of this year. Mobi was a respected surgeon, a popular colleague and an amazing person, who will always be remembered by his infectious smile and love of life. He contributed so much to the Society in his roles as an Elected Trustee, Perfusion Representative and as an integral part of SCTS Education from its inception (as faculty, course director and most recently as National Cardiac Surgical Tutor), amongst many of his other achievements to the specialty. Mobi was a great team player, generous to support all those around him and will be sorely missed by all his colleagues in Hull. Our thoughts and prayers are with his wife and three children at this extremely difficult time. Mobi, you will always be remembered. May you rest in peace. ■

From the Honorary Secretary



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

After fifteen months in post, I remain impressed by the Society's participation in all diverse aspects of cardiothoracic surgery (from yellow fever vaccination guidance to mitigating disruptions to the global supply chain) and its wide-ranging engagement with the NHS, the Royal Colleges and other professional organisations, patient groups, and industry on behalf of its members and our patients. The invaluable commitment and dedication of its members contribute to its success in improving the practice of cardiothoracic surgery for the benefit of its members, patients, and their families.

New appointments

New appointments to Society roles are listed on page 48. I would like to highlight the appointment of three members of the Executive: Mark Jones as Honorary Treasurer, Manoj Kuduvalli as Cardiac Surgery sub-committee co-chair, and Karen Redmond as Thoracic Surgery sub-committee co-chair (and Elected Trustee). Mark has taken on the role of Treasurer when the Society's finances are challenged by changes to industry and other support for its educational programme and pressure on its investments from the economy and wider geopolitical events. Manoj brings his experience as the President of UK Aortic Surgery to one of our principal sub-committees as cardiac units continue their slow recovery from the pandemic against the background of industrial action and procurement issues. Karen seeks to deal with the required expansion of thoracic surgery in response to lung cancer screening and the sharing of best practice across all five nations within the SCTS. We wish all our new appointees every success and offer wholehearted support for their new roles.

Review of the constitution

The Society's aim to improve the professional representation of all its

members was first presented at the 2022 Annual General Meeting. The proposed changes to the Society's Articles of Association (the 'constitution') have been discussed at Trustee and Executive meetings, last year's Board of Representatives meeting, and a dedicated webinar in February.

These two resolutions were agreed upon after this extensive consultation:

- That there should be an NTN Trustee elected by NTNs, a TAD Trustee elected by TADs, and an NAHP Trustee elected by NAHP members.
- That the Communication Secretary should be an Appointed Trustee.

Both resolutions were passed by a large majority at the virtual Annual General Meeting in June. These changes will increase the number of trustees from 11 to 15 and allow the representation of NTNs, TADs, and NAHPs at the highest level of SCTS decision-making. The next steps are to finalise the revision of the constitution with the Society's charity lawyers over the summer and start the election process for the new non-consultant trustees towards the end of this year. A new Communication Secretary and fifteenth trustee will be appointed to replace Sri Rathinam at the end of his term of office in 2025.

Mutual aid

Cardiothoracic surgical units face increasing pressures to maintain activity and manage waiting lists safely. The challenges are numerous and include staffing, ICU and ward bed capacity, procurement issues and supply chain disruption leading to equipment shortages. The Society recommends the development of regional networks and collaboration between units to mitigate against these challenges and continue to deliver effective care for our patients. Over the last year, our department has accepted out-of-

catchment and supra-regional in-patient referrals to help partner units struggling to manage their in-patient waiting lists; we have offered essential equipment (intra-aortic balloons) to a neighbouring unit to help the centre keep treating patients with suitable back-up. All units should develop strong links with their neighbouring centres to allow any approach for support that much easier.

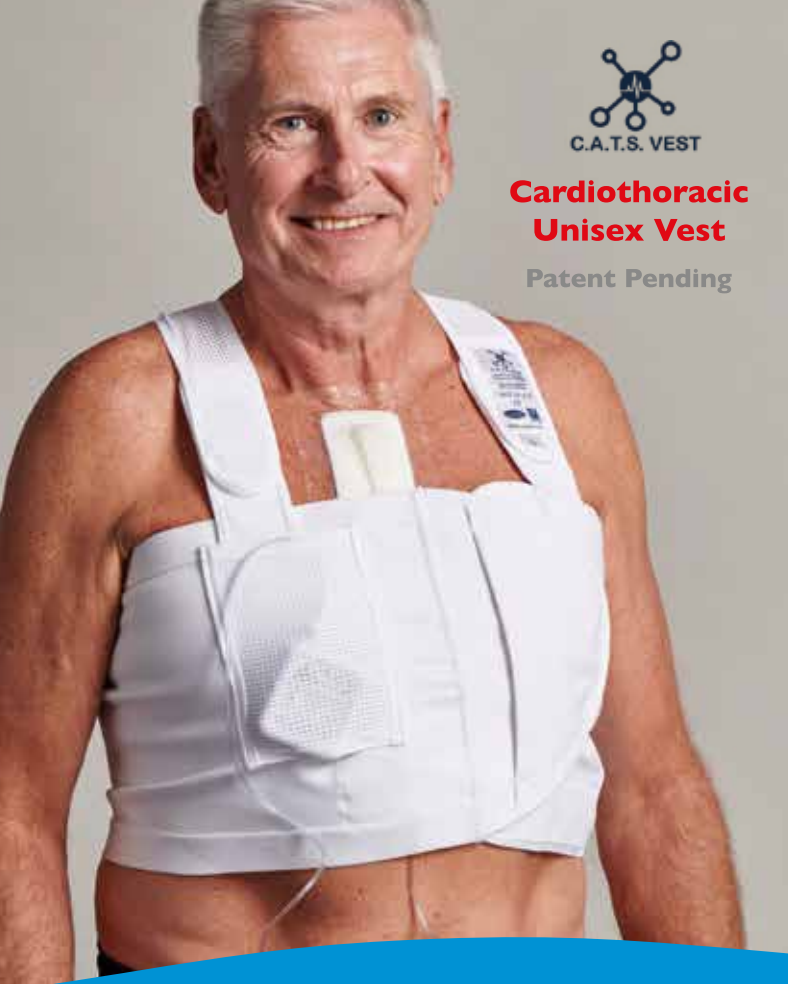
Units may need support for other reasons. Many of us will have been affected by the unexpected death of Mubarak Chaudhry, and we offer our condolences and prayers to his family and colleagues in Hull. Other units may be under pressure because of external investigations or stories in the media. Whatever the reason, we should all, at every level, remember to reach out and support our colleagues.

The Hippocratic Oath

Last year, the Hippocratic Oath was published in the Bulletin to highlight the historical principles underlying surgical practice and our approach to patients, colleagues, and teachers. It is recognised, however, that the Oath has become outdated in its language and has been modified or replaced in many medical schools and universities.

The SCTS recognises and apologises that the publication of the Oath in its original translation has unintentionally offended some of our members, and we thank Charlie Baillie and the WiCTS sub-committee for highlighting this issue. The SCTS's stance has always been and will continue to be to support women's rights and access to healthcare.

The WiCTS sub-committee embodies the Society's commitment to promoting women in cardiothoracic surgery. Furthermore, the Society's work in equality, diversity and inclusivity and widening participation reflect its broader responsibility to encourage and support all under-represented groups in the specialty. ■



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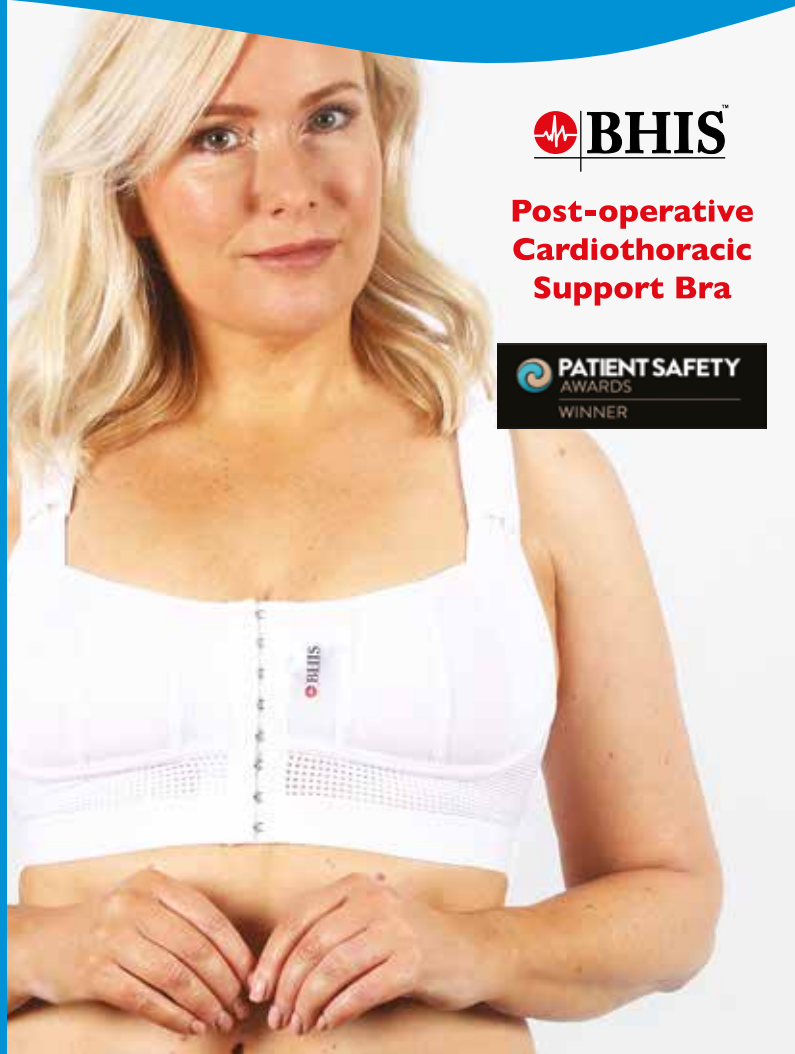
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SCTS Meetings Report

Daisy Sandeman, Outgoing NAHP Meeting Lead, Clinical Nurse Practitioner in Cardiac Surgery, Royal Infirmary of Edinburgh

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



The SCTS annual meeting 2023 took place in ICC Birmingham over three days starting on 19th March. It was a relatively shorter build up as the preceding meeting was nine months ago in Belfast. This meant the team had to work at pace to deliver an effective meeting with impact over a crucially limited period. Moreover, we had to be mindful of the format – not virtual, not hybrid but an exclusive face-to-face event, with the ambition of surpassing the achievements of Belfast 2022.

On the Sunday at the SCTS University, two cardiac and thoracic rooms were packed with delegates keen to hear from the international faculty. Thoracic highlights were lectures on Lung volume reduction, innovation, simulation and current state of sub-lobar resection for lung cancer treatment in the UK. We had amazing feedback again for the sessions organised in collaboration with UK Aortic Society and The British Heart Valve Society. For the second year running the transplant theme session was delivered with a focus on training. The tips in coronary surgery were capped off with an inspirational talk by Dr Davierwala from Toronto General and Professor Puskas from Mount Sinai Hospital, New York, who spoke about how to improve the quality of coronary surgery.

The NAHP Forum University Day started with some known and popular sections like the all-day Wetlab and Research morning. The delegates got a taster session of Virtual Reality experience in adrenaline-filled scenarios like Cardiac Advance Life Support on the University day, as well as guided opportunities for Zen & Mindfulness on all three days of the conference. Novel sections were added in the afternoon, which included physiotherapy & evolving roles. The day ended on a focussed Perfusion related zone covering the theory and hands-on practical aspects of the Cardio-pulmonary bypass machine receiving great feedback. The diversity of abstract sessions this year ranged from evidence based clinical developments to digital peri-operative pathways, with a focus on patient and staff well-being. An exciting and the only hybrid section of

the meeting was the International NAHP perspectives, drawing attention to training and progression of specialist teams from all over the globe. We had representation from Ghana, Saudi Arabia, India and Spain. There were cross cultural learning points and shared experiences that connected the SCTS NAHP membership to their international counterparts. The SCTS students were welcomed to the NAHP Wetlab sessions and attended the Pat Magee abstract presentation session.

The presidential address by Mr Moorjani opened the main meeting on the Monday where he shared the new SCTS constitution, introduced the quality improvement project in adult cardiac surgery and outcome monitoring of Thoracic surgery. Prof Bhutta then delivered a passionate lecture on sustainable healthcare and greener surgery, which inspired all to embrace change. Prof John Wallwork was then honoured by the society with the award of the 2023 SCTS Lifetime Achievement award in the presence of his family. Women in CT surgery section held a plenary session themed CT surgery without limits. The research subcommittee delivered the society's vision on research: A trial for every patient, a patient for every trial. The final plenary was the 10th anniversary of SCTS Education, where officers celebrated a decade of achievements and shared a vision for the future.

Over the next two days, we witnessed a showcasing of the best of local and international research abstracts being presented in their various themed sessions. SCTS is proud to partner with The Journal of Cardiothoracic Surgery where these abstracts will be published. International guests such as Professors Altorki, Dr Bavaria and Professor Puskas delivered inspirational lectures. Professor Isabel Schmitt – Opitz, current President of the European Society of Thoracic Surgery was awarded the 2023 Tudor Edwards Lecture: LVRS in patients with pulmonary hypertension. The congenital stream drew in the specialities leaders to deliver an exciting line up of lectures on new research and advances in daily practice. Dr Lugones was a

special guest of the Society and was awarded the 2023 SCTS Heart Research UK lecture.

In the NAHP stream exceptional keynote speakers joined the meeting. Dr Simon Mattison highlighting on the optimal peri-operative pathway and Hannah Knowles shining the light on the art of being brilliant. Professor Sheila O'Keefe-McCarthy from Canada arrived with a powerful collection of paintings and poems as part of the 'Opening up the Heart with Art' series. This surely opened our eyes on the impact of creative expressions in healthcare setting. As expected, the NAHP team awards were jubilant and celebratory ending the meeting on a high. There was recognition in the room for industry support towards the NAHP funds enabling several delegates to attend the annual meeting.

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 same evening following University day proceedings, pub quizzers got together showing signs of healthy competition amongst different groups and institutions. The main social event was a Peaky Blinder themed gala dinner full of glitz, glamour and prohibition style understated fashion. The attendees wined, dined and danced until the early hours. It was a memorable evening bringing together friends and colleagues.

Every year the annual meeting aims to be educational, informative, relevant and impactful. Yet again, the 2023 gathering without exception delivered and was a huge success. How do we know? Well, more than 1200 delegates attended over three days and the meeting received exceptional feedback. Pivotal to the success of SCTS 2023 were the members who registered for the meeting and made contributions with organisation, abstract marking, chairing and delivering lectures. Thank you to all our industry sponsors for supporting the meeting. We look forward to welcoming you all at ICC Wales from 17th-19th March 2024. ■

SCTS Executive Committee

President: Narain Moorjani

President-Elect: Aman Coonar

Honorary Secretary: Rana Sayeed

Honorary Treasurer: Mark Jones
Education Sec.: Deborah Harrington, Elizabeth Belcher
Nursing & AHP Rep: Bhuvana Krishnamoorthy
Perfusion Rep: Chris Eftymiou
Elected Trustees: Betsy Evans, Andrew Parry, Manoj Purohit, Vipin Zamvar, Attilio Lotto, Karen Redmond

Meeting Secretary: Cha Rajakaruna
Lay Representative: Sarah Murray
Trainee Reps.: Bassem Gadallah, Walid Mohamed
Communication Secretary: Sri Rathinam

Co-opted Members
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Research Co-Chairs: Eric Lim, Mahmoud Loubani
Innovation Co-Chair: Hunaid Vohra
Transplantation Co-Chair: Steven Tsui

Cardiothoracic Dean: Neil Roberts
SAC Chair: Tim Jones
Exam Board Chair: Sri Rathinam
Audit Co-Chair: Uday Trivedi

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 Mara Banuta

Adult Cardiac Surgery	Thoracic Surgery	Congenital Cardiac Surgery	Transplantation	Audit	Education	Research
<p>Co-Chair: Manoj Kuduvali</p> <p>Executive Co-Chair: Narain Moorjani</p> <p>Appointed Members: Hari Doshi Georgios Krasopoulos Giovanni Mariscalco</p> <p>Audit Leads: Uday Trivedi Dimitrios Pousios (Deputy)</p> <p>Education Lead: Deborah Harrington</p> <p>NAHP Representatives: Lisa Carson Kathryn Hewitt</p> <p>Trainee Representative: TBC</p> <p>Co-opted Members: Andrew Goodwin (NICOR) Peter Braidley (NHS Commissioning)</p>	<p>Co-Chair: Karen Redmond</p> <p>Executive Co-Chair: Rana Sayeed</p> <p>Appointed Members: Joel Dunning David Healy Leanne Ashrafian Mark Jones Syed Qadri Malgorzata Kornaszewska Nizar Asadi Mathew Thomas</p> <p>Audit Leads: Kandadai Rammohan Nathan Burnside (Deputy)</p> <p>Education Lead: Elizabeth Belcher Michael Shackcloth</p> <p>NAHP Representative: Xiaohui Liu</p> <p>Trainee Representatives: Jeesoo Choi Joe McLoughlin</p> <p>Co-opted Members: Emma O'Dowd (BTS) TBC (Commissioning) Mark Steven (ACTA) Aman Coonar (NHSE)</p>	<p>Co-Chair: Andrew Parry</p> <p>Executive Co-Chair: Aman Coonar</p> <p>Unit Reps.: Giuseppe Pelella Tim Jones Natasha Khan Conal Austin Mark Redmond Branko Mimic Martin Kostolny Ramana Dhannapuneni Mark Danton Ed Peng Massimo Caputo Shafi Mussa Fabrizio De Rita</p> <p>Audit Leads: Carin Van Doorn Serban Stoica (Deputy)</p> <p>Education Lead: Shafi Mussa</p> <p>NAHP Representative: TBC</p> <p>Trainee Representative: Joseph George</p>	<p>Co-Chair: Steven Tsui</p> <p>Executive Co-Chair: Aman Coonar</p> <p>Appointed Members: Marius Berman Stephen Clark John Dunning Aisling Kinsella Jorge Mascaro Rajamiyer Venkateswaran</p> <p>Audit Leads: Jorge Mascaro Marius Berman</p> <p>Website Lead: Aisling Kinsella</p> <p>Education Lead: Espeed Khoshbin</p> <p>NAHP Representatives: Emma Matthews Zoe Barrett-Brown</p> <p>Trainee Representatives: Bassem Gadallah Walid Mohamed</p>	<p>Co-Chair: Uday Trivedi Executive Co-Chair: Rana Sayeed</p> <p>Adult Cardiac Surgery Leads: Uday Trivedi Dimitrios Pousios (Deputy)</p> <p>Regional Deputy Adult Cardiac Surgery Leads: Indu Deglurkar (Wales) Zahid Mahmood (Scotland) Alastair Graham (Northern Ireland)</p> <p>Thoracic Surgery Leads: Kandadai Rammohan Nathan Burnside (Deputy)</p> <p>Congenital Cardiac Surgery Leads: Carin Van Doorn Serban Stoica (Deputy)</p> <p>NAHP Representatives: Emma Matthews Nisha Bhudia Zainab Khanbhai Rosalie Magboo</p> <p>Co-opted Members: Andrew Goodwin (NICOR)</p>	<p>Co-Chairs: Deborah Harrington Elizabeth Belcher</p> <p>Executive Co-Chair: Aman Coonar</p> <p>Surgical Tutors: Michael Shackcloth Mahmoud Loubani</p> <p>Congenital Cardiac Surgery Lead: Shafi Mussa</p> <p>Transplant Surgery Lead: Espeed Khoshbin</p> <p>NAHP Representative: Bhuvana Krishnamoorthy</p> <p>Trainee Representatives: Bassem Gadallah Walid Mohamed</p> <p>Consultant Leads: Prakash Punjabi Shahzad Raja</p> <p>Trust Appointed Doctors Leads: Zahid Mahmood (Cardiac) Mohammad Hawari (Thoracic)</p> <p>Student Leads: Farah Bhatti TBC</p> <p>Accreditation Lead: Shafi Mussa</p> <p>Communication Lead: Vivek Srivastava</p>	<p>Co-Chairs: Eric Lim Mahmoud Loubani</p> <p>Executive Co-Chair: Cha Rajakaruna</p> <p>Adult Cardiac Surgery: Gianluca Lucchese</p> <p>Thoracic Surgery: Babu Naidu</p> <p>Congenital Cardiac Surgery: Massimo Caputo Nigel Drury</p> <p>NAHP Representatives: Rosalie Magboo Zainab Khanbhai Hemangi Chavan Nisha Bhudia</p> <p>Trainee Representatives: TBC</p> <p>Medical Student Leads: Niraj Kumar Gokul Raj Krishna</p> <p>Co-opted: Andrew Goodwin (NICOR) Serban Stoica (Congenital Audit) Gavin Murphy (Cardiothoracic SSL) Luke Rogers (ASSL) Ricky Vaja (ASSL) Akshay Patel (ASSL) Jacie Law (ASSL) Ann Cheng (ASSL) Brianda Ripoll (ASSL)</p>

Professional Standards	Innovation	Equality, Diversity & Inclusion	Nursing & Allied Health Professionals (NAHP)	Women in Cardiothoracic Surgery (WICTS)	Communications	Patient Safety Working Group
<p>Co-Chair: Sarah Murray</p> <p>Executive Co-Chairs: Andrew Parry Betsy Evans</p> <p>Bhuvaneswari Krishnamoorthy</p>	<p>Co-Chair: Hunaid Vohra</p> <p>Executive Co-Chair: Narain Moorjani</p> <p>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</p> <p>Trainee Representatives: Joshil Lodhia Bassem Gadallah Walid Mohamed</p> <p>NAHP Representatives: Una Ahearn Bhuvana Krishnamoorthy</p> <p>Lay Representative: Sarah Murray</p>	<p>Co-Chair: Indu Deglurkar</p> <p>Executive Co-Chair: Narain Moorjani</p> <p>Appointed Members: Giovanni Mariscalco Rashmi Birla Cecilia Pompili Nicole Asemota Nikhil Sahdev Shagorika Talukder Ahmed Abbas Chiemezie Okorocho Hanad Ahmed Aswari Pillai Ramanjit Kaur Charlie Baile Adam Borrer Samuel Burton Jeevan Francis Sathyan Gnanalingham Anoop Sumal</p>	<p>Co-Chair: Bhuvaneswari Krishnamoorthy</p> <p>Executive Co-Chair: Sri Rathinam</p> <p>Regional Tutors: Libby Nolan Michael Martin Namita Thomas Yi Wang</p> <p>Cardiac Lead: Kathryn Hewitt</p> <p>Thoracic Lead: Xiaohui Liu</p> <p>Audit Lead: Hemangi Chavan</p> <p>Transplantation Lead: Emma Matthews</p> <p>Innovation Lead: Una Ahearn</p> <p>Membership Lead: Jane Dickson</p> <p>Communication Lead: Jeni Palima</p> <p>Pharmacy Lead: Nisha Bhudia</p> <p>Critical Care Lead: Anna Gesicka</p> <p>Perfusion Lead: Lisa Carson</p> <p>Physiotherapist Lead: Zoe Barrett-Brown</p> <p>Research Leads: Zainab Khanbhai Rosalie Magboo</p> <p>Physician Associate Lead: Ramanjit Kaur</p> <p>Surgical Care Practitioner Lead: ACTSCP President - Bhuvaneswari Krishnamoorthy</p>	<p>Co-Chair: TBC</p> <p>Executive Co-Chair: Narain Moorjani</p> <p>Academic Cardiothoracic Rep: Julie Sanders</p> <p>Cardiac Surgery Reps: Rashmi Yadav Debbie Harrington</p> <p>Trainee CT Surgery Reps: Michelle Lee Georgia Layton</p> <p>Thoracic Surgery Reps: Cecilia Pompili Melanie Jenkins Elizabeth Belcher</p> <p>Congenital Surgery Rep: Carin Van Doorn</p> <p>CT Transplantation Rep: Laura Viola</p> <p>Specialty Doctor Rep: Betsy Evans</p> <p>Executive invited member: Theatre Surgical Care</p> <p>Practitioner Rep: Esme Shone</p> <p>Advanced Clinical Nurse Practitioner Rep: Lorna Whitford</p> <p>Clinical Physiotherapist Rep: Rosie Smith</p> <p>Medical Student Rep: Asmita Singhania</p>	<p>Co-Chair: Sri Rathinam</p> <p>Executive Co-Chair: Rana Sayeed</p> <p>SCTS Website: Clinton Lloyd</p> <p>Bulletin: Indu Deglurkar</p> <p>NAHP Representative: Jeni Palima</p> <p>Consultant Living Text Book Co-Leads: Bilal Kirmani Jeremy Smelt</p> <p>Perfusionist Representative: Lee Clark</p> <p>Trainee Members: Hanad Ahmed Raisa Bushra Maria Comanici Francesca Gatta Georgia Layton</p>	<p>Co-Chair: Andrew Parry</p> <p>Executive Co-Chair: Sri Rathinam</p> <p>Appointed Members: Vanessa Rogers Ismail Vokshii Rhina Alam Mubarak Chaudhry Jane Dickson Jody Stafford Stephen Clark Brank Mimic Sarah Murray</p> <p>Trainees</p> <p>Trainee Rep (Senior): Bassem Gadallah</p> <p>Trainee Rep (Junior): Walid Mohamed</p> <p>Appointed Members: TBC</p>
<p>Meetings</p> <p>Meeting Secretary: Cha Rajakaruna</p> <p>Executive Co-Chair: Sri Rathinam</p> <p>Deputy Secretary: Sunil Bhudia</p> <p>Associate Secretary: Carol Tan</p> <p>NAHP Meeting Lead: Nisha Bhudia</p> <p>NAHP Associate Meeting Lead: Rosalie Magboo</p> <p>Conference Organisers: Tilly Mitchell / Maika Jimenez Emma Piotrowski</p>						

SAVE THE DATE



SCTS ANNUAL MEETING 2024

Sunday 17th – Tuesday 19th March

**Abstract Submission Opens
1st September 2023**

**Registration Opens
1st December 2023**

www.scts.org



ICC
WALES



SCTS Education Secretaries Report

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

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



SCTS Education was shocked and saddened to learn of the death of Mobi Chaudhry, our National Cardiac Co-Tutor. Mobi Chaudhry and Mahmoud Loubani were appointed in a shared post as National Cardiac Tutors in December 2022. His death has left a huge void in SCTS Education. In the all too short time he spent as Cardiac Co-Tutor, he had built on his years of commitment to SCTS Education as a director and faculty. He was instrumental in the alignment of courses with the current curriculum. His hands-on approach meant he was to be found at most of the courses this year, most recently at our new Critical Conditions Course in May, where his enthusiasm and commitment to teaching were, in evidence, delivered with the typical joy we all recognised in any interaction with him. SCTS Education sends our sincere condolences to his family, friends, and colleagues.

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, AstraZeneca, AtriCure, BD, CMR Surgical, Corcym, Corza, Edwards, Ethicon, Intuitive, Getinge, Medtronic, Pulmonx, Serb, Storz and Terumo Aortic. We look forward to announcing more exciting new partnerships later this year.

Fellowships

SCTS Education is delighted to announce the award of Fellowships by Heart Research

UK and AstraZeneca, and The Aortic Centre Trust Michael Warburg Fellowships. The opportunities afforded via the generous funding by charity and industry provide benefits, not only to those SCTS members detailed below but to future patients, from the knowledge gained and further disseminated. Awards were subject to competitive application, and we look forward to reading the SCTS Bulletin Fellowship articles by recipients.

Fellowship Awards

Heart Research UK SCTS Trainee Fellowships in Adult and Paediatric Cardiac Surgery

Duncan Steele	Joseph George
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Heart Research UK SCTS Academic Research Fellowships

Georgia Layton	Nicholas Chilvers
----------------	-------------------

Nicole Asemota

Heart Research UK SCTS Medical Student Travelling Fellowships

Javeria Tariq	Ujjawal Kumar
---------------	---------------

Alex Poovathoor	Bobby Chow
-----------------	------------

Heart Research UK SCTS Patient Education and Awareness Project

William Crawford

SCTS Astra-Zeneca Oncology Fellowship

Jacie Law

SCTS Aortic Centre Trust – Michael Warburg Fellowship

Rashmi Birla

NTN Portfolio

We continue to align the NTN Portfolio with the current curriculum. A new Critical Conditions Course ran at Ashorne Hill in May. We are grateful to the Course Directors, Jon Rosser, Consultant Cardiothoracic Anaesthetist and Neil Cartwright for delivery of this novel course, based on the highly successful Beyond BASIC Cardiac ICU Course. With the addition of Thoracic Surgery and Trauma, a bespoke SCTS Course has been created as an addition to the Portfolio. The course is open to NTN and TADs.

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

We endeavour to offer flexibility to trainees at the end of their training, with regard timing of the later courses around examination diets. We expect, however, that from 2024 all trainees will attend courses appropriate to their year of training, as aligned to the current curriculum.

TAD Education

Zahid Mahmood and Mohammad Hawari lead the TAD Portfolio. 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. In addition to the TAD Wetlab Course and

CESR courses, in November a new TAD Portfolio Course, sponsored by Ethicon will pilot. TAD places are newly available on the Hamburg Courses thanks to Ethicon funding. The full list of courses now available to TADs includes:

- CESR Course
- TAD Wetlab Course
- TAD Ethicon Pinewood Course
- ST2.2 Introduction to Specialty Training Course
- ST3.1 Operative Cardiothoracic Surgery Course
- ST3.2 Non-Technical Skills for Surgeons Course
- ST5.1 Cardiothoracic Surgery Sub-Specialty Course
- ST5.2 Critical Conditions Course
- ST6 Revision and Viva Course for the FRCS-(CTh)
- ST7.1 Cardiothoracic Pre-Consultant Course
- ST7.2 Leadership and Professionalism Course

Congenital Portfolio

The Congenital Heart Disease Course will run on the 27th-28th September at Ashorne Hill and is open to Congenital Heart Disease Clinical Fellows, TADs and NTNs and includes hands on wetlab sessions.

NAHP Education

Bhuvana Krishnamoorthy has developed the current NAHP Portfolio as a combination of face-to-face and online courses to facilitate optimal attendance, the acquisition of practical skills and networking. The NAHP Core Thoracic Course and Core Cardiac Courses ran as face-to-face courses at Ashorne Hill in Spring and Summer. The Harefield Core Thoracic Organ Transplantation Course was open to delegates from the multi-disciplinary team, including NAHPs and trainees, facilitating team learning. The NAHP Research Webinar ran as an online course in July.

The Education Subcommittee welcomes several new members. President-elect, Aman Coonar joins us as Executive Co-Chair. We would like to thank George Asimakopoulos for his work in the role for the past three years as National Cardiac Tutor. Mohammad Hawari has been appointed Thoracic TAD lead and we are

grateful to Kandadai Rammohan for the developments in the TAD Portfolio under his leadership. Shafi Mussa is the new Congenital Education co-lead and will work with Attilio Lotto during a transition period this year. We are grateful to Attilio for his fantastic work in building the Congenital Portfolio over the last few years. We remain grateful to our Subcommittee members, Course Directors, and Faculty in all our education streams for their ongoing efforts to provide education for our specialty.

Finally, we would like to reiterate our thanks to our administration team Mara Banuta and Taet Chesterton, without whom SCTS Education would not function. Please do let them know if your contact details change, so that we can update our records accordingly and you are appropriately invited to SCTS Education events. (education@scts.org).

We look forward to seeing you at SCTS Education events over the remainder of 2023. ■



SCTS Education Tutors' Report

**Michael Shackcloth, SCTS Thoracic Tutor,
Consultant Thoracic Surgeon, Liverpool Heart & Chest Hospital**

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



We start this report by remembering the sad loss of Mubarak Chaudhry. He was an integral part of SCTS Education from its inception 10 years ago, as faculty, course director, and most recently as National Cardiac Surgical Co-Tutor. He was an excellent trainer, sharing his knowledge with great enthusiasm in his cheerful manner. He will be deeply missed by the whole of the Cardiothoracic Surgery community.

The NTN portfolio of courses has now been aligned to the new 7-year curriculum and are outlined below.

In May, we ran the first ST5.2 Critical conditions course at Ashorne Hill. The course was based on the Beyond Basics Cardiothoracic Intensive Care course developed by Jon Rosser (Consultant Cardiothoracic Anaesthetist, Sheffield). Along with Neil Cartwright they adapted the course for Cardiothoracic Surgery trainees. The course provided trainees with lectures and practical stations on the nine critical conditions, outlined in the Cardiothoracic surgery syllabus. These are of significant importance for patient safety and form part of the final FRCS CTh exam.

In June, we ran the ST3B/Phase 1: ST3.1 Operative Cardiothoracic Surgery Course and in May we ran the ST7.1 Cardiothoracic Pre-Consultant Course in Hamburg. It was a welcome return to Hamburg for the ST7.1 course. Last year the Thoracic pre-consultant course was a cadaveric course in Newcastle. Being able to replicate some of the more advanced Thoracic surgery operations on cadavers was felt to be beneficial for trainees. This year we were able to combine both cadaveric and live animal operating on the course to provide the trainees with both opportunities.

Ashorne Hill hosted the ST7.2 Leadership and Professionalism Course in December, and the ST6 Revision & Viva Course for FRCS CTh in March. Both courses were open to Trust appointed Doctors (TADs) applications as well as NTN. Next year more of the NTN courses will be open to TADs.

We continue to urge each trainee to contact SCTS Education (education@scts.org) to ensure we have your correct contact details, including email address, telephone number and up-to-date level of training. This will enable us to invite you to the courses aligned to your stage of training. Please let us know if you think you should have been invited to a course, and do respond to any emails received as soon as possible, to assist in our course planning. We have released all of the 2023 course dates so that study

leave can be booked at the earliest opportunity. Any places not taken up by NTN will be made available to TADs. Failure to reply and confirm your place in a timely manner may mean your place is reallocated. The feedback we receive from attendees confirms these courses to be of high quality and educational. We would strongly urge you to attend when invited and look forward to welcoming you onto your next SCTS NTN course.

Thank-you goes to Mara Banuta who has settled into the role as SCTS Education Administrator outstandingly, who puts in an enormous amount of hard work behind the scenes to ensure the courses run smoothly. Finally, we would like to express our gratitude to all faculty and course directors for their hard work in preparing and delivering the courses. ■

NEW NTN CURRICULUM COURSES		SCTS EDUCATION
PHASE 1 COURSES		
ST1	General Surgical Competencies Course	
ST2.1	Essentials in Cardiothoracic Surgery Course	
ST2.2	Introduction to Speciality Training Course	
ST3.1	Operative Cardiothoracic Surgery Course	
ST3.2	Non-Technical Skills for Surgeons Course	
PHASE 2 COURSES		
ST4.1	Core Cardiac Surgery Course	
ST4.2	Core Thoracic Surgery Course	
ST5.1	Cardiothoracic Surgery Sub-Specialty Course	
ST5.2	Critical Conditions Course	
PHASE 3 COURSES		
ST6	Revision and Viva Course for the FRCS (C-Th)	
ST7.1	Cardiothoracic Pre-Consultant Course	
ST7.2	Leadership and Professionalism Course	
ST4 THORACIC THEMED PHASE 2 COURSES		
ST4.1	Core Cardiac Surgery Course	
ST3.2*	Non-Technical Skills for Surgeons Course	
ST5.1	Cardiothoracic Surgery Sub-Specialty Course	
ST5.2	Critical Conditions Course	
ST4 THORACIC THEMED PHASE 3 COURSES		
ST6	Revision and Viva Course for the FRCS (C-Th)	
ST7.1	Thoracic Pre-Consultant Course	
ST7.2	Leadership and Professionalism Course	

2023 Course Programme	Location	Date
ST2.1 Phase 1: Essential Skills in Cardiothoracic Surgery Course	Nottingham City Hospital	18th - 19th September
ST4.1 Phase 2: Core Cardiac Surgery Course (ST4A)	Ashorne Hill	20th - 22nd November
ST1 Phase 2: Introduction to Cardiothoracic Surgery Course	Ashorne Hill	1st December
ST7.2 Phase 3: Leadership and Professionalism Course (ST8B)	Ashorne Hill	4th - 5th December

SAC Chair Report

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



#NoTrainingTodayNoSurgeonsTomorrow

The impact of COVID on surgical training remains apparent. Across all surgical specialities, there has been a loss of 900,000 elective training cases recorded in trainees' logbooks from the start of the pandemic to May 2021. Whilst overall surgical activity is now increasing, cardiothoracic surgical activity has not yet returned to pre pandemic levels with elective cardiac surgery the slowest to recover. The reasons for this are multifactorial and the impact on surgical training has been significant. Operative training has understandably been most affected, but the impact is also seen in training in the management of in patients, intensive care, the emergency on call and outpatients.

National, regional and local COVID recovery plans aim to address the surgical backlog. The strive for increased efficiency coupled with the use of the independent sector is resulting in increased surgical activity but this must not be at the detriment of training opportunities. The provision and access to high quality training is everyone's responsibility from trainee, trainer, statutory educational body, employer and the NHS. Wherever NHS patients are being treated, training and learning should occur. The agreement by the NHS to allow surgeons in training access to independent hospitals is welcomed. We must capitalise on these opportunities and see every case as a training case and 'there is no operation a trainee cannot do at least part of'.

As a craft speciality our trainees need to spend time in theatre both assisting and operating. A minimum of two days per week in theatre is not being achieved by all trainees despite the national target of three days per week with some units providing trainees with 3-4 days per week in theatre. We want to learn from and disseminate these good practices to all training programs and this is one of the focusses of our current work.

The use of the new Annual Review of Competency Progression (ARCP) outcomes 10.1 and 10.2 introduced during COVID are declining nationally as surgical training improves which is encouraging. From August 2023 they will no longer be available across all surgical specialities.

One of the positive benefits of COVID has been the development of stable online electronic platforms. This has led to the emergence of online teaching programs with the benefit of improving access to teaching for all trainees and members of the surgical team. The SAC, working with HEE and the SCTS is looking at how we can centralise this resource to provide increased access and quality.

In August 2021 we changed to a new curriculum for cardiothoracic surgical training. While other surgical specialities embraced the move, there has been a reluctance to adopt the change in cardiothoracic surgery. The new curriculum focusses on achieving competencies in the practices and behaviours required to be a safe and effective consultant. In addition, the new Multi Consultant Report (MCR) in combination with Trainee Self-Assessment help target areas for development and

improvement for the individual trainee. There has been a lot of discussion around a reduction in overall training time. The adoption of the new curriculum has not resulted in the automatic migration of anyone's CCT date. The new curriculum is outcomes based allowing the trainee to progress at their own rate to CCT. It is not time based. Progression through the three stages of the curriculum and achievement of CCT is dependent upon the trainee reaching agreed competencies at each stage.

The transition to the new curriculum will be completed by 2nd August 2023 and after this time ISCP will automatically transition all trainees to the new curriculum as they set up new placements.

The SAC, working with SCTS, continues to roll out curriculum training sessions and support for trainees and trainers in addition to the information already produced and published on ISCP and JCST and by local training authorities. It is implicit for every trainee, trainer and ARCP panel to familiarise themselves with all aspects of the new curriculum. The ISCP helpdesk is an excellent resource for answering questions and resolving issues.

As well as improving access to training we are committed to improving the quality of training. The preceding years have seen poor engagement by trainees in the

“The SAC, working with SCTS, continues to roll out curriculum training sessions and support for trainees and trainers in addition to the information already produced and published on ISCP and JCST and by local training authorities.”

JCST and GMC Training Surveys. This has significantly restricted our ability to understand and respond to current issues and trends in training. Whilst they cannot be made compulsory, please can all trainees and trainers complete the JCST and GMC Surveys when required.

Despite the current challenges we all face, Cardiothoracic Surgery remains a very popular career choice attracting very capable and able trainees. Earlier this year we successfully completed national recruitment. From over 260 applications for ST1 training we appointed 11 excellent applicants to the national Cardiothoracic training program and we appointed a further 4 trainees to ST4 entry into Thoracic Surgical training. We welcome

them all to their new training programs which they will join in August 2023.

Following a change in legislation, there is an upcoming change in the Certificate of Eligibility for Specialist Registration (CESR) pathway to enter the specialist register. The new legislation comes into effect from 30th November 2023. Applicants will no longer have to demonstrate equivalence in their training to CCT but instead demonstrate they have the knowledge, skills and experience to enter the specialist register. We await details of the new process with more information expected in October this year.

Finally, you may be aware in April this year NHS England and Health Education England (HEE) merged to form a single

organisation. This means NHS England has assumed responsibility for all activities previously undertaken by HEE. There should be no changes for those who currently use HEE services, including no changes to Training Program Directors or Heads of Schools of Surgery and the way you contact them will remain the same.

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

1. CST, ASiT, BOTA, CoPSS . 2021. COVID-19 recovery – training any time, any place, every case – no excuses. <https://www.jcst.org/jcst-news/2021/04/25/news-item/>

SCTS Nurses and Allied Health Professional Update

Prof Bhuvanewari Krishnamoorthy, SCTS NAHP chair and Education NAHP lead



I would like to wish a warm welcome to all NAHPs and hope you enjoy the sunshine while it lasts. Summer brings us joy, happiness, optimism, and new beginnings for all of us. As a NAHP chair, what it means for our society is to bring new innovative teaching, evidence-based practice, collaboration, better ways of working to improve work & life balance and establishing collaborative work across the globe was my strategic vision 2023.

Our team constantly developing our educational portfolios to accommodate our members' needs with the latest technology of virtual reality programmes and so on. We introduced our first physiotherapy and perfusionist focused session at the SCTS annual conference. The delegates rated 95% that the physiotherapy session was relevant and 96% said that the perfusionist session was valuable to their clinical practice.

For the first time, we included virtual reality sessions to promote our members mental health and wellbeing and VR Cardiac

Advanced Life Support (CALS) at the SCTS annual meeting 2023.

Virtual reality sessions have been introduced in the education portfolio as part of the successful SCTS Ionescu fellowship. One of the outcomes of this fellowship was to introduce digital technology in the NAHP education.

Virtual reality in mental health and wellbeing:

We introduced DR.VR™ frontline that has been designed to self-manage the staff stress and anxiety at work. 76 members attended the sessions of which 95% took 5 minutes DR.VR™ sessions and 5% took 3 minutes sessions. There were 66% female, and 34% male participants in the session. 47% felt anxious, 26% neutral, 12% excited, 10% calm and 5% annoyed before starting the VR mindfulness session. 55% felt some what stressed, 21% moderately stressed, 17% not stressed at all,

6% severely stressed before starting the session. 96% agreed that using VR mindfulness session was a pleasurable experience and 4% neither agree or nor disagree. 98% agreed that they felt relaxed during the VR session. More detailed results will be published elsewhere.

Cardiac Advanced Life Support (CALS) Virtual reality:

We introduced a virtual reality (VR) simulation for Advanced Life Support (ALS) after cardiac surgery, including cardiopulmonary resuscitation (CPR) and emergency re-sternotomy procedures. The participants started as the team leader, guiding their team through the resuscitation to achieve key steps before the timer runs out. Then they took on the role of surgeon, preparing the required equipment and executing a re-sternotomy, before carrying out internal cardiac massage and/or internal defibrillation.



We believe that a total of more than 230 attended but 199 completed the online feedback for the VR wet lab session which includes medical students, nurses, allied health professionals, surgical trainees and consultant surgeons. 99% said that they have enjoyed the VR CALS session and 98% said that it is very educational and relevant for their clinical practice. 99% said that they will encourage their colleagues and trainees to attend the sessions in the future.

NAHP awards 2022:

We announced our NAHP best team of the year 2022 during our annual meeting in March 2023. It was amazing to see how many members stayed back to celebrate the success of our NAHPs. I would like to congratulate all the NAHP team winners 2022.

Sustainability:

A major question raised was how we afford the huge costs of achieving zero carbon when even our reasonable financial situation doesn't meet the need to invest in maintaining our NHS infrastructure.

But we agreed that this was a real priority for our society, and we are working to set up a sustainability working groups to develop national strategy, literature review and good examples to reduce our carbon footprint.

As a NAHP chair and education NAHP lead, we can try our best to conduct non-hands-on educational courses to be conducted as an online study day. I strongly believe that conducting courses online will provide a good work and life balance and reduce the carbon footprint. An online survey will be sent out to all members to understand their views.

In addition, we have completed a first draft of literature review about the sustainability and greener NHS. The proposal for the national survey will be set up by the working group. If anyone wants to get involved, please do not hesitate to contact me via b.bibleraj@salford.ac.uk

Collaboration:

SCTS-CONNECT collaboration with Prof. Julie Sanders team will bring fantastic research opportunities for our NAHP members. Some of the benefits will be CONNECT joint sessions at the SCTS annual conference, more research opportunities for our members, research support and mentorship will be provided by the CONNECT members. CONNECT is a Cardiac surgery International Nursing and Allied Professional Research Network. If any of our NAHP members want more information, please do not hesitate to contact Prof. Julie Sanders via j.sanders@qmul.ac.uk

NAHP Education summary:

2023 year has been momentous for our education. We have successfully conducted many educational events including a thoracic surgery one day course in Ashorne Hill, Leamington Spa, Organ donor course at Harefield and Research awareness courses in many places across the GB and many more. We have developed many educational courses to accommodate different educational needs for all NAHPs with our 10 NAHP leads. First hands-on perfusionists ECMO course was conducted at Leicester hospital which was sponsored by Simulation lab. More details will be discussed elsewhere in the Bulletin. ■

What is coming up in education?

More details about these courses, please visit our SCTS education NAHP website or contact our Education Administrator, Mara Banuta (mara@scts.org)

- June 2023 (Cardiac core surgical skills course at Leamington spa).
- July 2023 (Digital education in CT surgery at Leamington spa).
- July 2023 (Research awareness course online).
- July 2023 (Research methods and mentorship online).
- August 2023 (Physiotherapist course online).
- September 2023 (Transplant course online).
- September 2023 (Enhanced recovery course online).
- October 2023 (Ultrasound course at RCS Birmingham office).
- November 2023 (FPC conference at Birmingham studio).
- December 2023 (Outpatient clinic set up online).

Adult Cardiac Sub-Committee Report

**Manoj Kuduvali, Co-Chair, SCTS Adult Cardiac Surgery,
Consultant Cardiac Surgeon, Liverpool Heart & Chest Hospital**



Adult cardiac surgery backlog

Activity has resumed and improved beyond the worst times of the pandemic and is approximately 80% of pre-pandemic levels. However, there is wide variance, and some units are coping with only 50% of pre-pandemic activity levels. Mutual aid and network-based activity may be beneficial in some areas, however the logistics of this may not be the easiest to negotiate.

AVR / TAVI NHS position statement

NHS England published a position statement (published 1st February 2023) on the use of transcatheter aortic valve implantation (TAVI) for intermediate- and low- surgical risk patients as an interim measure to alleviate the pressures on local systems. This was to facilitate and

support managing patients with severe AS who are experiencing longer waiting times to intervention. SCTS has engaged and had a meeting with the Cardiac Services Clinical Reference Group.

At the meeting, it was agreed that:

- A robust, quorate, aortic valve multi-disciplinary meeting (MDM), with all appropriate specialists present, should be employed for patients at clinical equipoise between TAVI and surgical aortic valve replacement (SAVR) following the Joint Societies MDM guidance (Attachment 1 – Getting the best from the Heart Team).
- Clinical decisions made in a patient's best interest in line with national guidelines should not be altered solely based on waiting times, given that in many hospitals waiting times for TAVI are longer than for SAVR.

- The NHSE interim position statement should not be used to inappropriately redirect patients towards TAVI who would otherwise have undergone SAVR.

A more detailed communication has been sent to the SCTS membership in this matter.

IABP shortage

There is an international supply problem with IABP kits produced by Getinge, who hold a large market share in this device. The Cardiac Services CRG, involving NHS supply chain and NHS Resilience has been leading the national response to this problem and has been engaging closely and seeking advice from the SCTS and BCIS. SCTS initially supported its membership with guidance around moderated utilization of IABP devices in the context of the current shortage. There is no clear indication of when the issue is going to see resolution, but it is likely to be months rather than weeks. A Field Safety Notice has been issued by Getinge providing details of the problem with the equipment, which is primarily in the obturator / dilator of the sheath, rather than the device itself, and options for the use of already supplied kits have been provided. SCTS has worked with the CRG on a situation statement regarding the problem.

ACTACC / SCTS joint meeting

A meeting jointly organized by ACTACC (Association for Cardio-Thoracic Anaesthesia and Critical Care) and SCTS in November 2022 had to be cancelled due to rail strikes. This has now been rescheduled for Monday 6th November 2023 at the Royal Society of Medicine, London. Details are available via the SCTS website at the following link:

https://scts.org/events/187/actacc_scts_joint_study_day ■



Thoracic Surgery Sub-Committee Report

**Aman Coonar, Outgoing Co-Chair, SCTS Thoracic Committee & President Elect,
Consultant Thoracic Surgeon, Royal Papworth Hospital, Cambridge**



I was asked to write about my two years as SCTS thoracic surgery committee co-chair. Where to start?

It seems as if I started yesterday! It was a grey, cold January 2021, COVID was rife, and we were still getting used to online meetings. What could I contribute? Lean in or lean out?

Jump forward ... looking back on the last two years. My strongest feeling is of massively enjoying it. I met loads of new people and got to know others better. I saw the thoracic surgery community coming together, stronger and kinder. That's got to be good for patients and us.

Let me really start by thanking the amazing, fantastic committee members who made the time and space for this work on top of their busy lives. Thank you for your wisdom, experience and for putting up with me. All our outputs: published, in process or discretely unnamed, are because of your time and effort. What a great team. Thank you!

What about the other arm? The Thoracic Forum, that proudly independent band of thoracic surgeons who in our informal and unregulated chats and other gatherings have counselled, teased, helped, cajoled, stimulated and guided. What a great crowd. We are so much better for that.

Here are some of the things that the SCTS Thoracic Surgery did or are ongoing:

- High level thoracic surgery workforce report.
- Bid for themed thoracic surgery training which resulted in the ST4 thoracic recruitment programme.
- LVR engagement, guideline development and national rollout.
- LVR MDT proforma development and release.

- Thoracic surgery survey and unit characteristics report.
- Guidance on thoracic surgery job-planning.
- Guidance on elective operating after COVID infection.
- Supporting the National Consultant Information Programme (NCIP).
- Developing clinical pathways on airway obstruction and pneumothorax for NICE/GIRFT.
- Royal College consultant job plan reviews and sitting on interview committees.
- Sitting on advisory groups for robotics and cancer.
- Supporting units and colleagues in difficulty.

“To me advocacy is very important in our work, as is insisting that clinicians guide and develop healthcare pathways – not the other way round!”

- Supporting the thoracic surgery research projects in particular the VIOLET and MERITS studies.
- Working with the British Thoracic Society (BTS) and the Association of Cardiothoracic Anaesthesia and Critical Care (ACTACC) and other societies. And much more ...

We decided to increase representation. So, in recruiting new people we asked for members who were doing mixed practice (some thoracic surgery is still done by them) and those working in each of the SCTS nations instead of just England. We also saw robotics as a key part of the future and appointed robotic surgeons. We increased our Allied Health Professionals and now have representation from nurses and physiotherapy. Thus, all five nations have their voice; and we have a greater proportion of women.

We need to excite and engage with trainees. So, we set up a thoracic trainee group, who in turn set up a network for communication, support and engagement. They have run successful webinars and have appointed their successors.

Very important to me is work-life balance and a strong dislike of long meetings. One of our first actions was to move the meeting into a surgeon's working day and reduce it to an hour. Rightly or wrongly, it was too early for some, so we had a vote and accepted the democratic decision of moving it a little later. I will keep pushing for an earlier finish!

In this role I have learned so much and have been fortunate to having SCTS president Simon Kendall as my co-chair. A special thank you for your mentorship and showing me how to be a better listener.

There are many jobs still to do. We are working hard to deal with the suffering of Pectus patients and their families. We are liaising with

the NHS, patients and other stakeholders to sort this out, such that all our Pectus patients can receive the type of Pectus Care that has become available in Scotland.

To me advocacy is very important in our work, as is insisting that clinicians guide and develop healthcare pathways – not the other way round!

Moving forward, I am excited and intrigued to see how the story of thoracic surgery evolves. What a great time with new technologies, increasing work from lung cancer screening and lung volume reduction and new styles of working.

We have found a great new chair to follow. Good luck to Karen Redmond and the team. As I've moved to NHSE I'll still be around, especially on the service specifications.

Lean in and enjoy it. Thanks for having me! ■

Incoming Co-Chair, SCTS Thoracic Committee



**Karen Redmond, Incoming Co-Chair, SCTS Thoracic Committee,
Consultant Thoracic & Lung Transplant Surgeon, The Mater Hospital, Dublin**

Dear Colleagues,

It has been a fast-paced, interactive series of meetings since I have taken over as Co-chair from Aman, chairing my inaugural meeting in April of this year. I am honoured to be working within the SCTS with a team of lead thoracic surgeons delivering on specialist services for England, Scotland, Wales, NI and Ireland. Many thanks to Aman, Rana, Simon and Narain for their time and expertise in guiding my efforts in the right direction.

The group members represent a number of key national committees

including CEGs for cancer, AHP groups, Audit, Education, NCIP etc. It was exciting for me to realise that the SCTS Thoracic Surgery Subcommittee has a major influence in shaping the delivery of thoracic surgery for our members and patients and I am delighted to be part of the team.

One of our initiatives, the Pectus Care programme, is shaping up, with exciting developments afoot, including a website, patient support group, national MDT, registry, best practice guidelines, Pectus Care Programme service specifications, submission to NIHR RESTORE trial,

CPET expert group and much more.

The SCTS / ACTACC joint Meeting will be held at the RSM on Monday 6th November so please come along – there are some excellent speakers discussing such topics as neoadjuvant chemotherapy, tracheobronchomalacia, rib fracture stabilisation techniques, with an opportunity to catch-up in person.

I am keen that we, as a group, influence service provision in all five countries and would value any feedback to understand a changing landscape and the challenges we face after COVID-19. ■

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Communications Sub Committee Report

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



Time flies when you are having fun and what a progressive six months it has been with the communications committee. Our communications are more streamlined with the weekly newsletter; we still send focused emails for important pertinent matters. Our social media presence is constantly evolving and improving.

We have brought out the inaugural issue of **From the Chest** followed by the May issue and the feedback has been very positive. We encourage members to send us articles of varied nature like unit heritage, surgeons' passions, challenges, illustrations and photography. From the Chest will complement the Bulletin with a monthly issue, 10 months of the year.

The first two articles on the **Escapists club** have been excellent and it opens our eyes to wider interests of the surgeons but not to forget they always compare it to the surgical practice.

We aim to highlight the inner workings and activities of the various sub committees. We aim to showcase our members in each of the issues.

The website is being updated with member well-being sections on Bullying, Harassment and Wellbeing, with guides and links to support our members. There is also a section on resources for Left Handed surgeons, as well as Mindfulness and Wellbeing.

Significant progress has been made in bringing out the SCTS Meeting Abstracts in the JCTS.

Our committee has expanded with young energetic and enthusiastic members joining our committee. They bring a variety of new ideas and concepts, which I am sure will benefit our members.

We continue to represent SCTS in International Relations and there are opportunities and avenues of collaborations with India, Egypt, Malaysia and Hong

“We have charted an ambitious objective and I am pleased we are delivering them one by one.”

Kong, where the SCTS can support education or meetings.

We have charted an ambitious objective and I am pleased we are delivering them one by one and with the vibrant and enthusiastic team I am sure the committee will go from strength to strength.

As always we will value your feedback and contributions to improve our offering and serve you better from the Communications team. ■



Members of the Communications Sub Committee - Top row (L-R): Bilal Kirmani, Jeremy Smelt, Georgia Layton; Middle row (L-R): Hanad Ahmed, Raisa Bushra, Maria Comanici; Bottom row (L-R): Francesca Gatta, Lee Clark, Jeni May Palima, Dr Rohith Govindraj

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SCTS Transplant Education Lead Report

**Espeed Khoshbin, SCTS Transplant Lead,
Consultant Cardiac & Transplant Surgeon, Harefield Hospital, Middlesex**



Good methodical surgical skills are essential for the success of transplantation. Transplantation is becoming more complex. Bridge to transplantation with mechanical circulatory support is becoming the norm and no longer an exception. Hence in this complex environment it has never been as important to have a multi-disciplinary approach to patient management. So, training in transplantation should encompass all different transplant disciplines.

Scholarship programmes

SCTS transplant education is planning a collaboration with the British Society of Heart Failure to pilot an advanced heart failure, transplantation, and mechanical life support scholarship. The programme will follow the ISHLT (International Society of Heart and Lung Transplantation) curriculum for management of heart failure through transplantation and mechanical circulatory support. Delegates will be cardiologists, cardiothoracic surgeons, Intensivists, heart failure nurses and pharmacists. There will be a process of selection. The Scholarship programme will consist of virtual lectures by world class faculty followed by visiting scholarship opportunities.

SCTS University

This year will be the third time Transplantation and mechanical circulatory support is featured at the SCTS University. We will hope to organize a fantastic

educational programme for the meeting in Wales between the 17th and 19th of March 2024. The details regarding the programme will be announced in our next Bulletin. We encourage transplant surgeons and all allied health professionals to submit their abstracts for the transplant sessions.

Transplant courses

In this issue of the SCTS Bulletin we also report the success of Harefields first Core Thoracic Organ Transplantation course. The international cadaveric course held at the Institute of Transplantation, Freeman Hospital, Newcastle will continue to attract advanced delegates who seek surgical hands-on experience and mentorship in surgical aspects of heart and lung transplantation and mechanical circulatory support. This course has recently been also embraced by the European association of cardiothoracic

surgery. This year's programme will be advertised shortly by the course director Professor Steve Clark.

The future

Sir Magdi in his speech at the STaR centre spoke of the **“importance of research and training for the good of humanity”**. Hence, this year we will begin our efforts to promote research in education. There will be a study into computerised learning and assessment, where we will be investing in innovation and research in surgical training through artificial intelligence. We will invest in our future generation of transplant trainees by seeking expression of interest for a PhD position at the National Institute of Heart and Lung Research, Imperial College, London. The details of which will be revealed at the SCTS annual meeting in March 2024. ■



SCTS NAHP Perfusion Lead Update



**Lisa Carson-Price, SCTS NAHP Perfusion Lead,
Senior Clinical Perfusion Scientist, Glenfield Hospital**



Sagar Haval - The Simulator Company; Lisa Carson Price - Faculty Lead/Perfusionist, Leicester; Usha Inglis - Lead Scrub nurse, Cardiff; Jody Stafford - Faculty lead/Perfusionist Cardiff; Richard Hartshorne - Chalice Medical

Since the last publication, the focus has been creating a standout programme for the first-ever perfusion-led session at the SCTS annual conference. Following the success of the SCTS Post cardiomy simulation day run in November, we attempted to bring a version of this to the NAHP University Day.

Collaborating with industry partner, Sagar Haval from the Simulator company, and supported by Richard Hartshorne from Chalice Medical and Damian McCann from Getinge, we formulated a session covering theoretical and practical aspects of post-cardiotomy veno- arterial ECMO. The session was opened by Mr Giovanni

Mariscalco, Consultant Cardiothoracic Surgeon, who delivered a talk on cannulation strategies underpinned by recent research. This talk was then followed by a session on ECMO circuits components & compositions delivered by myself (Lisa Carson-Price – Perfusionist). Leading on to a patient case study, of failure to wean a patient from cardiopulmonary bypass and the subsequent requirement for veno-arterial ECMO.

The second half of the programme gave rise to practical simulation underpinning the aforementioned lectures. Delegates were able to rotate around stations, undertaking tasks pertaining to the case study presented to the group. The cannulation station used

the Simulator’s cannulation mannequin and the Levetronics/Chalice ECMO circuit to perform femoral cannulation, connecting up to the ECMO circuit and ECMO initiation. Delegates were supported by the surgical team and former perfusionists Sagar (the Simulator Company) and Richard (Chalice medical) throughout the tasks.

A further three stations were dedicated to Oxygenator failure, priming and changeout. This was based on the case study where the oxygenator had begun to fail, caused by the administration of clotting products and stopping circuit heparinisation, to correct the patient’s coagulopathy/bleeding. Delegates were fully supported by Jody Stafford (Perfusionist), myself and Damian McCann (Getinge) in the priming and changeout of the oxygenators, for both adults and paediatrics using a range of devices.

The Perfusion-led session culminated in a quiz, where delegates used their phones to answer questions related to the session. Points were awarded according to the speed of response and the correct answers. The participation was phenomenal, and the competitiveness gave the room an electric atmosphere.

Advanced nurse practitioner, Alan Clethro, from Birmingham University Hospitals NHS Trust, was crowned the V-A ECMO quiz champion.

Although somewhat different to the expected format of presentations, the faculty hope the hands-on, interactive aspects made the learning points memorable and fun.



Mr Giovanni Mariscalco - Consultant cardiothoracic surgeon University Hospitals of Leicester NHS Trust



Lisa Carson-Price - Senior Clinical Perfusionist University Hospitals of Leicester NHS Trust

The session catered for the range of professionals attending and those involved in providing ECMO support. After all, teamwork makes the dream work!



Oxygenator Changeout station

Any other business

Other communications to note are the continued issues we are all experiencing with disposables used in cardiopulmonary bypass. From chest drains to CPB cannula, to intra-aortic balloon pump catheters, the problems seem to be relentless! In an attempt to understand the issues, the adult cardiac committee met with industry representatives with a view to providing support to resolve these issues.

The industry representatives expressed frustration with the revised revalidation processes and the limited number of organisations able to carry this out. The process has caused numerous backlogs, resulting in products being temporarily shelved and a reduction in stock available.

The Cardiac chair agreed the SCTS would write to MHRA (Medicines and Healthcare products Regulatory Agency) to raise this as a professional concern and highlight the impact it is having on surgery throughout the country. ■



Cannulation station

SCTS NAHP Research and Audit Committee Update

Rosalie Magboo, SCTS NAHP Research Committee Lead, Clinical Doctoral Research Fellow, Senior Sister, St Bartholomews Hospital, London

Nisha Bhudia, Incoming SCTS NAHP Meeting Lead, Lead Pharmacist, Critical Care and Anaesthesia, Royal Brompton and Harefield Hospitals

Zainab Khanbhai, Senior Pharmacist, Cardiothoracic Surgery, Royal Brompton and Harefield Hospitals

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



We had another successful Nursing and Allied Health Professional (NAHP) university research and audit day at the 2023 annual meeting in Birmingham. We started the day with an interactive audit session with our very own, Mr Uday Trivedi and Mr Nathan Burnside. This was followed by an update from Mrs Nisha Bhudia on the AF care bundle national audit and the lessons learned from conducting this audit from Mrs Manjula Sajeewan, Senior Sister at Swansea Bay UHB.

For the research session, we were delighted to host Dr Sheila O’Keefe-McCarthy

and Dr Karyn Taplay from Brocks University, Ontario, Canada who have shared with us their He-ART-istic Journey Series through a lecture on ‘Translating research data into arts’ and a stunning art exhibition throughout the duration of the conference.

The He-ART-istic Journeys Series interpret the narratives of individuals encountering cardiovascular disease through thematic poetry, song, theatre and visual mediums. Dr O’Keefe-McCarthy said that, “art can be a healing medicine and creates a shared space where the journey through illness is co-reciprocally felt, heard, seen and experienced.”

We also had the patient and public involvement in research. Ms Catherine Fowler, founder and trustee of The Aortic Dissection Charitable Trust, have discussed the patient’s power in research and Mr Nigel Westwood, the patient researcher in the TARGET Wound Infection study, have shared with us his experiences as a patient researcher and his learning of becoming a ‘very patient researcher’. The session was concluded by a presentation from Prof Bhuvana Krishnamoorthy on the result of the SCTS NAHP survey.

University research and audit day speakers, moderators and meeting organisers



Mentorship programme

The details for the application for the NAHP mentorship programme is now available at the SCTS website. This programme aims to provide the SCTS members with access to research mentorship network to facilitate the development of high-quality cardiothoracic nursing and allied professional research. Support will be provided at various level – from simply getting started with research/ developing research question to building clinical academic career and potentially developing world-class research. Email your completed application to: emma@scts.org.

Nursing and Allied Health Professional Research Group

We also welcome you to join the SCTS Nursing and Allied Health Professional Research Group (NARG), a group of nurses and AHPs who are interested in cardiothoracic research, at any level. The aim is to provide the opportunity to network, seek and offer research support, and to facilitate research collaborations. If interested, kindly complete the application form available at the SCTS website or contact any of the NAHP Research and Audit leads.



Dr Sheila O'Keefe-McCarthy delivering her lecture on 'Translating research data into arts'

Upcoming events

The SCTS National Cardiothoracic Research Meeting; The meeting will be held virtually on Friday 3rd November 2023. Please check on the SCTS website for the deadline of the abstract submission. ■



Ms Catherine Fowler discussing the patients' power in research



NAHP Core Thoracic Surgical Skills Course April 2023

Hemangi Chavan, Advanced Practitioner Thoracic Surgery, Royal Brompton Hospital, London

Xiaohui Liu, SCTS NAHP Thoracic surgery Lead, Thoracic Advanced Care Practitioner, University Hospital Southampton NHS Foundation Trust



The NAHP core thoracic surgery skills course took place on 27 April 2023 at Ashorne Hill, Leamington Spa. The course aimed to provide an overview of the management and treatment of thoracic surgical patients. The morning session focused on thoracic anatomy and physiology, improving fitness for thoracic surgery, a disease associated with the pleura, airway, chest wall and lung cancer staging and management.

The afternoon session was practical and interactive and included bullous emphysema, lung volume reduction (surgical and non-surgical), pain management, chest drain management, thoracic diagnostic testing, post-operative complications and discharge planning.

This one-day thoracic course was conducted face-to-face. Given the clinical workload, travelling time and early start for the course, the delegates were offered

accommodation, dinner, and transport to the venue to encourage attendance and was sponsored by Ethicon Education. The faculty included a consultant thoracic surgeon, senior allied health professionals including advanced practitioners, clinical nurse specialists and physiotherapists. The total number of delegates and faculties participated was 26.

The course was received well and had excellent feedback. The course director acknowledges the feedback received from the delegates and would review extending the course to two days to include the practical sessions and workshops for next year.

Some of the feedback from the delegates:

'It was a very interesting course with loads of relevant content it was covering the multidisciplinary teams and their involvement which is a key aspect in thoracic excellent sessions with great content in each presentation' (Allied Health Professional, Birmingham)

'Great event, very good program and excellent speakers. Course was very well organised' (Allied Health Professional, Swansea)

'What stands out most for me, however, is that attending this course is outstanding proof of commitment in my application for higher speciality training. I feel equipped with the clinical know-how needed to understand and deliver high-quality, evidence-based care to thoracic surgical patients' (Dr Aamir Amin, SHO, London)



Student Engagement Day 2022

Ayush Balaji, Second Year Medical Student, Hull York Medical School
Rishab Makam, Foundation Year 1 Doctor, Hull University Teaching Hospital Trust



For many years, the SCTS Student Engagement Day has been a platform to inspire students within the United Kingdom into cardiothoracic surgery through talks about the speciality. This November in Hull, the event followed a new direction of 'inspiration by doing' under the theme of exploring the 'Landmarks in Cardiothoracic Surgery'. The conference featured a few short keynote discussions from leading surgeons and researchers in cardiothoracic surgery. However, the primary focus was the hands-on workshops with consultant-led and trainee-supported teaching.

Medical education has traditionally focused on teaching theoretical knowledge. However, our conference aimed to flip this narrative and allow students to showcase their knowledge in a practical setting, enabling them to develop the technical skills necessary for surgery and a chance to recognise the pragmatic aspects of a career in surgery. With the hope that practical experience will lead to a greater appreciation of the speciality, a key emphasis was placed on the value of hands-on skills teaching and small group workshops. As medical students become more involved in surgery, they gain an understanding of the different procedures and their implications. We aimed to provide students with a chance to experience operative techniques and the functional effects of their work with the hope that practical teaching will lead to a greater sense of enthusiasm and passion for the field. Moreover, hands-on experience can promote engagement by providing a sense of accomplishment and being a source of motivation to pursue the speciality.

Students had a chance to look at and use different imaging modalities such as TOE, Angiography, and Bronchoscopy to understand the preoperative aspect of patient care; they had an opportunity to try out different applied skills such as suturing, coronary anastomosis, aortotomy, aortic anastomosis, chest drain insertion, VATS, and more on both animal tissue and high-fidelity simulation modules! The sessions were undertaken with personalised support to each delegate from surgical trainees, SCsPs, consultants, and members of the NAHP.

A big part of the event's success was establishing an inclusive and collaborative



environment that promotes dialogue between aspiring students, surgeons, and industry. We had a great exhibition from our sponsors during lunch that helped a great deal in providing students with networking opportunities. We also wanted to highlight the longitudinal aspect of managing a patient through the sessions. Communication between the working groups of students allowed them to explore the reason for the intervention by learning about patient assessment, preoperative planning, and the procedure itself. This understanding can foster an appreciation of the profession and a sense of why the different aspects are vital to providing quality patient care.

Another key goal of our conference was to engage aspiring surgeons from an early stage. Hence, we extended the invitation to 6th-form students from around the region.



We had around forty 6th formers in attendance, for many of whom this was their first interaction with surgery! We curbed this issue by creating a more straightforward bridge to surgical skills. Their workshops focused on teaching about various instruments, basics of suturing and knot tying, as well as case discussions to provide context to their surgical skills.

All of this was followed up by a friendly but competitive Quiz that further encouraged the spirit of teamwork and communication. Alongside was a display of clinical posters for delegates to visit during the refreshment breaks. Overall, the conference was a great success, and attendees left with a greater understanding of cardiothoracic surgery, as well as valuable contacts, resources, and practical skills.

This event was planned as a collaboration between the Hull York Medical School Cardiothoracic Surgery Society and the SCTS Inspiring Students Into Cardiothoracic Surgery (INSINC) committee and with the support of SCTS, Ethicon, Medtronic, Corza, and Hull Medical Society. Alongside our partnership with the Royal College of Surgeons in England, the Royal College of Surgeons in Edinburgh, the Hull Surgical Skills Training Centre, and the Hull York Medical School Student Research Society. Our volunteers and faculty played a massive role in the smooth running of the day, as well as the guidance obtained from our mentors Ms Karen Booth, Professor Farah Bhatti OBE, and Professor Mahmoud Loubani. Without their guidance, this event would not have been possible. A special thanks must be given to the Castle Hill Hospital Hull team for their support in the event planning and assistance throughout. ■

Attracting Future Doctors to Cardio-Thoracic Surgery; a Student's Perspective

**Leo Maltby, Medical Student,
Queen Elizabeth Hospital, Birmingham**



Five months ago, nothing felt out of the ordinary as I was about to commence a third-year placement at a new hospital. I would never have thought that months later I would feel compelled to write about my experience with the thoracic surgery department at the Queen Elizabeth hospital, and how it could potentially shape my career as a future doctor and aspiring surgeon.

Earlier this year I was sat in a lung cancer MDT meeting, admittedly a bit lost, having been thrust into the world of clinical medicine for the first time. Luckily, a friendly Thoracic surgeon, Mr Fallouh, filled in the gaps and invited me to his clinic following the meeting. It was not long before I shared his passion for thoracic surgery and found myself spending an increasing amount of time with him and his colleagues in the department.

With Mr Fallouh and his colleagues, I was confident that after attending a clinic

or list, I would leave having gained valuable knowledge and skills. I soon found that third year surgical content was no longer about ticking off medical school lectures, and instead, I was able to learn through case discussion and novel experiences in theatre. Experiences such as these are only made possible by surgical teams who proactively teach and enrich the learning of the next generation. Out of all the surgical departments I have been placed with so far, thoracic surgery has provided the greatest amount of support through their clear, structured, and engaging approach.

Another student and I were keen to get involved with research and were invited by the team to join some of their current projects. We were provided with support and guidance for when we were ready to embark on our own project. I was involved in data collection, was given the opportunity to

co-author an abstract for the EACTS and we are currently working on a manuscript.

In exchange for showing interest and being in the right place at the right time, we found ourselves on the train to London with Mr Fallouh to the SCTS 'Best Practice for Pectus event' at the Royal College of Surgeons. There, we were introduced to Emma Piotrowski and met inspiring surgeons from across the country. We gained a different perspective of how surgical provision is allocated in the NHS, which is something that no medical school would prepare you for. We also learnt about a whole section at the SCTS dedicated for students like us and we were presented with an opportunity to volunteer at the SCTS annual conference 2023 in Birmingham.

At the SCTS annual conference, we worked as runners in the presentation rooms, ensuring the sessions ran smoothly, whilst also learning from internationally renowned cardiac and thoracic surgeons. It was a valuable experience that I would be keen to do again next year in Wales and would recommend it to any aspiring surgeon.

It is wonderful to see the SCTS empowering medical students through their many initiatives focusing on inspiring the next generation, early participation in the specialty, and surgical skills development. This was evident at the annual conference where the wet labs and student seminars were both a remarkable success. This will continue to maintain a competitive speciality, pushing up the standard of surgeons in the field. The work of surgeons, such as Mr Fallouh, championing the SCTS is vital and goes a long way to spread its message and increase awareness of the support and opportunities available.

I am extremely thankful for all the time and effort the thoracic team at the QE have given me, and without their support none of this would have been possible. Going forward, this approach to embrace and engage with the medical students should be shared and adopted by other surgical specialities.

Perhaps what has really compelled me to write this article is, firstly, to spread the word to students like myself about the value of engaging with the surgical teams and embracing the clinical placements as a work experience as they can open so many opportunities for our career. But more importantly, to highlight to the clinicians, such as the brilliant team in Birmingham, the value of the time they give medical students, and the knowledge they share with us. ■



Leo Maltby and Mr Hazem Fallouh (consultant thoracic surgeon at the Queen Elizabeth Hospital, Birmingham) at the Birmingham Research Park, University of Birmingham.

The Harefield core thoracic organ transplantation course: Improving transplant education and research

Yi Wang, Senior Theatre Nurse, Harefield Hospital, Middlesex

Espeed Khoshbin, SCTS Transplant Lead, Consultant Cardiac & Transplant Surgeon, Harefield Hospital, Middlesex

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



This year is the 40th anniversary of Europe's first combined heart-lung transplantation performed at Harefield Hospital. We celebrated this occasion with no other than Professor Sir Magdi Yacoub, who joined us via a video link from Egypt. He expressed his wish to have been with us in person. Sir Magdi acknowledged our efforts in transplant education by establishing the first core thoracic organ transplantation course at Harefield and spoke of the importance of "improving transplant education and research for the good of humanity".

The course was run at its maximum capacity of forty delegates. They ranged from senior year medical students, researchers, junior core and speciality trainees, non-training grade clinical fellows, consultant surgeons, senior nurses, and other related allied health professionals. There were delegates from all parts of the United Kingdom, the republic of Ireland, Europe and visitors from the far east.

The course was organized by the transplant subgroup of the SCTS Education subcommittee and carried 5 CPD points. It was sponsored by the



industry and conducted face-to-face at the STaR centre, Harefield Hospital, Uxbridge, London.

The programme was delivered through series of expert lectures, practical demonstrations, and group discussions. There was an update on the recent developments in the field of organ care system in the United States during the lunch session.

The day was divided into four. The morning section had an early start with registration at 8 am. This section concentrated on cardiac transplantation. We reflected on the history of cardiac transplantation, recipient selection, cardiac procurement, and a demonstration on the role of echocardiography during cardiac retrieval. Prior to lunch we showcased the role of allied specialities including transplant scrub teams, transplant pharmacy and microbiology. After lunch we discussed organ procurement and preservation.

We covered aspects of donation after cardiac death and thoracic organ procurement in synch with abdominal normothermic regional perfusion (NRP). Some of the ethical aspects of organ donation and procurement were debated. Finally, we concentrated on surgical aspects of thoracic organ transplantation with a special emphasis on lung transplantation technique "the way we do it". We were reminded of some of the current challenges that we face nationally with respect to lung utilisation. Finally, we submerged deep into molecular level research to improve outcomes in lung transplantation. We finished the day by celebrating years of research at Magdi Yacoub research facilities as part of the national heart and lung research institute, Imperial College London.

The immediate feedback from the delegates has been fantastic. We are awaiting the formal written feedback before we plan the second core thoracic transplant training course in May 2024. ■



The Midlands Cardiothoracic Meeting 2023

Mayooran Nithiananthan, ST5 Cardiothoracic Trainee, Nottingham City Hospital



The Midlands Cardiothoracic Meeting, a long-awaited event after Covid 19 pandemic, took place on 3rd of March 2023 at Glenfield Hospital, Leicestershire. This conference brought together esteemed experts, surgeons, and researchers from the Midlands region and beyond to share knowledge, discuss advancements, and explore best practices in cardiac and thoracic care.

One of the standout features of the Midlands Cardiothoracic Meeting was its focus on interdisciplinary collaboration. The event attracted a diverse audience,

including cardiac surgeons, thoracic surgeons, medical oncologists, anaesthesiologists, intensivists, and allied healthcare professionals. This multidisciplinary approach facilitated a comprehensive exchange of ideas and perspectives, leading to a more holistic understanding of the challenges and opportunities in cardiac and thoracic care.

The conference commenced with an introduction and welcome from the East Midlands training program director (TPD) Mr Adam Szafranek (Consultant Cardiac surgeon, Nottingham City Hospital). Followed by a compelling introduction to aortic surgery talk from Mr Viktor Zlocha (consultant cardiac surgeon, Glenfield Hospital).

Mr Mohammad Hawari (Consultant thoracic surgeon from Nottingham City Hospital) delivered an inspiring presentation on robotic thoracic surgery and training. The presentation included operative videos and lessons learned during early stages of robotic training. Mr Hawari also announced that their unit is planning to offer robotic surgery fellowships for senior thoracic fellows and trainees in the near future. These presentations covered a wide range of topics, including advancements in surgical techniques, emerging technologies, and their effect on patient experiences.

Following all the surgical talks, Professor Samreen Ahmed (consultant medical oncologist), delivered an insightful presentation on perioperative chemotherapies in lung cancer, which was well received.

Our meeting showcased an impressive array of research presentations, researchers and trainees presented their work

through engaging oral presentations. Topics covered a broad spectrum of cardiothoracic specialties, including coronary artery bypass grafting, heart valve surgery, aortic surgery, lung cancer resections, mesothelioma diagnosis and minimally invasive procedures. Associate professor Mr Mustafa Zakkar presented their research and experience on vein graft patency and preservation techniques, which was well received. The diverse range of research projects underscored the commitment of Midlands-based institutions to advancing the field and improving patient outcomes.

The Midlands Cardiothoracic Meeting offered ample networking opportunities for attendees to connect with like-minded professionals, fostering collaboration and relationship building within the field.

There were two inspiring cardiothoracic fellowship presentations, from Mr Edward Caruana (Consultant thoracic surgeon, Glenfield Hospital) and Mr Umar Hamid (Consultant cardiac surgeon, Nottingham City Hospital). Both presentations engaged with participants in meaningful discussions, shared experiences, and helped to establish valuable connections that may lead to future collaborations.

Furthermore, the conference provided a platform for professional development, ensuring they stay up-to-date with latest developments in cardiothoracic surgery. Our meeting exemplified its emphasis on interdisciplinary collaboration, insightful presentations, cutting-edge research presentations and networking opportunities. We thank our event sponsor SERB pharmaceuticals and SCTS for promoting this event.

We also extend our gratitude to Mr Sridhar Rathinam (Consultant thoracic surgeon, Glenfield) for initiating and supporting us, to resurrect this meeting. We are aiming to hold the Midland's meeting annually, and future dates will be announced soon via SCTS.

Follow us on [@ctsurg_em](https://twitter.com/ctsurg_em) ■



Thoracic Wetlab Course March 2023

Salman Arif, Registrar in Cardiothoracic Surgery, Castle Hill Hospital, Hull
Azar Hussain, NTN ST7 in Cardiothoracic Surgery, Castle Hill Hospital, Hull
Prof Mahmoud Loubani, Consultant Cardiac Surgeon, Castle Hill Hospital, Hull



The Surgical Skills Suture Centre in Hull has become well known among the aspiring surgeons at all levels ranging from pre medical school to the NTN's for delivering relevant and useful courses. We organised a wet lab course for the candidates who wish to progress their career in Thoracic Surgery. This was a part of collaboration with Medtronic and the National Society of Surgical Skills Wet lab series.

Although this course was aimed at the candidates who were preparing to apply for the NTN training post at ST4 level in Thoracic Surgery, it covered all the aspects to serve the needs of everyone at different levels in their career.

The course started with introductory talks and interactive and succinct review of surgical anatomy with emphasis on the relevance of structures to different thoracic surgical operations. Shortly after that the candidates were introduced to different energy devices and endostaplers. They were given ample time to familiarise themselves with the instruments and their application.

The wet lab was set up with porcine lungs simulators with endoscope and VATS instruments on each station. Two candidates were allocated to each station in order to give everyone the opportunity to act as surgeon and assistant during a VATS procedure. The candidates were taught useful tips and tricks during this session by our expert faculty.

There were three stations set up after the lunch break; one for hands on practice of lobectomy on LAPSIM, second for bronchoscopy on orr-sims, and a third station to have interactive discussion on interesting images relevant to thoracic surgery. The candidates were divided into three batches so that everyone rotated through all the stations. Once finished from all the programmed activities; all the attendees were given self-directed learning time to go to the wet lab or any of the simulator stations. All the stations were attended by our valued faculty all the times.

We have received excellent feedback from the



candidates stating that they enjoyed attending the course and found it useful and would recommend it to their friends. We would like to thank Medtronic who sponsored the course which allowed us to cut down the cost of the course. Also, they managed to provide us with LAPSIMS in addition to other disposables which the course attendees found very useful. We plan to organise further courses in the future in collaboration with industry based on the success of the course and wonderful feedback from the delegates. ■





Aortic surgeons from three continents join the charity's patient team in celebrating Aortic Dissection Awareness UK & Ireland's 5th birthday at the 2023 SCTS Annual Meeting

Aortic dissection awareness celebrates 5th birthday at 2023 SCTS Annual Meeting



Christina Bannister, Nurse Case Manager, Southampton General Hospital



National patient charity Aortic Dissection Awareness UK & Ireland was founded by a small group of patients in 2015. It was formally constituted at the 2018 SCTS Annual Meeting in Glasgow and became a registered charity in April 2022.

It is fitting therefore that the patient charity, which has led a transformation of awareness, diagnosis and care in Aortic Dissection since its inception, should celebrate its 5th official birthday at the 2023 SCTS Annual Meeting. The charity's exhibition stand was very busy throughout the conference, with many speakers and delegates visiting to talk with patients

about their inspiring work and enjoy a piece of birthday cake. At one point, it was amazing to see Aortic surgeons from three continents talking with patients, relatives and researchers at the charity's stand.

SCTS member Mr. Geoff Tsang (right) is the charity's Medical Advisor (Cardiac Surgery) and had the honour of cutting the birthday cake, in the presence of distinguished guest surgeon and staunch support of the charity's global THINK AORTA campaign, Prof. Joe Bavaria (centre). They were joined by Prof. John K M Chan (next to Mr. Tsang), who introduced the charity's life-saving THINK AORTA campaign to Malaysia last year.

The Chair and Vice-Chair of the national patient charity, Aortic Dissection survivors Mr. Gareth Owens and Mrs. Haleema Saadia, were on hand with six members of their team to talk about how the charity has grown, what they have achieved and what the future holds for this dynamic, patient-led organisation.

Asked to name his highlights of the last five years, Mr. Owens said: "Number one is creating an active community of over 1,000 Aortic Dissection patients and relatives across the UK & Ireland who inform, empower and support each other on a daily basis through our 'AD Buddies' peer support group."



Vice-Chair of the national patient charity, Mrs. Haleema Saadia, with bereaved relative Lisa Skinner and Type A Aortic Dissection survivor Anne Cotton

“Number two is creating the THINK AORTA campaign in partnership with SCTS, the Royal College of Emergency Medicine and Heart Research UK, which is improving the diagnosis of acute Aortic Dissection and saving lives around the world.”

“Number three is conceiving and organising a unique national conference, Aortic Dissection Awareness Day UK on 19th September, now in its 8th year, which brings together patients, relatives, healthcare professionals and researchers; recognises organisations doing great work in the field; and helps drive national progress.”

“Number four is publishing the definitive handbook, Aortic Dissection: The Patient Guide and committing to provide a free copy to every Aortic Dissection patient in the UK & Ireland in perpetuity.”

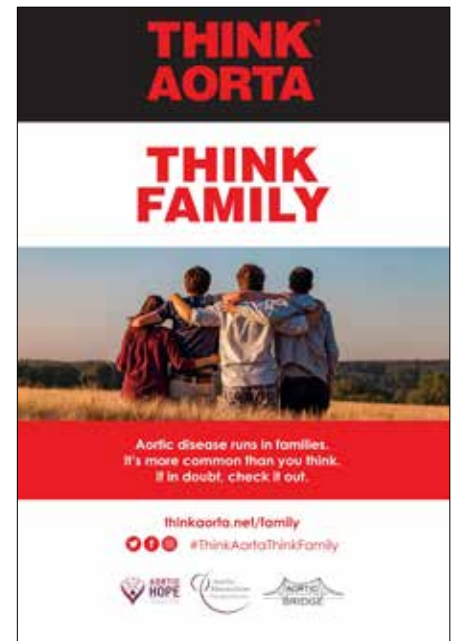
“Number five is working with the Department of Health & Social Care to reach a national consensus on a patient-led set of Aortic

Dissection research priorities, which NIHR, MRC, BHF, EPSRC and Heart Research UK have already used to allocate over £4 million to Aortic Dissection research.”

“Number six is influencing NHS England to take some action and then acting as the patient voice for the NHSE Acute Aortic Dissection Toolkit, which is now being implemented across the regions.”

Mr. Owens continued: “As SCTS members know, Aortic Dissection has been a neglected national issue with significant problems of misdiagnosis and an unwarranted regional variation in care and outcomes for many years. If you want to transform the national approach to a little-known disease, you need an effective patient voice and engaged professional partners. I think that, as patients, we are a powerful catalyst for change, but the change we want to see only occurs when partners like SCTS work with us to bring it about.”

Mrs. Saadia highlighted another aspect of the charity’s work: “It’s all about families affected by Aortic Dissection” she said. “I suffered an acute Type A Aortic Dissection during pregnancy at the age of 21, putting my life and the life of my baby at risk. I’m forever grateful to SCTS member Mr. Jorge Mascaro for his skill



in saving us. Since I joined the national patient charity, I have been focused on developing our services for families at risk of Aortic Dissection, especially women in pregnancy. Publishing our new booklet ‘Planning Pregnancy with Aortic Disease’ last September is a real highlight for me.”

This focus on whole families affected by Aortic Dissection is a growing theme of the charity’s work. The launch of the THINK AORTA, THINK FAMILY campaign took place the same week on both sides of the Atlantic, at the Houston Aortic Symposium and at the SCTS Annual Meeting in Birmingham. The campaign adds a focus on prevention to the THINK AORTA message, raising awareness that Aortic disease runs in families and calling for effective screening and surveillance of families (including non-syndromic) who are at risk. Mr. Owens gave a joint keynote talk in the Aortic Aneurysm session on Monday morning with former SCTS Research Lead and BHF Professor of Cardiac Surgery at the University of Leicester, Prof. Gavin Murphy, titled ‘Towards the Prevention of Acute Aortic Dissection’. The duo set out the objectives and progress of the NIHR-funded DECIDE-TAD research programme, a strategic research partnership between the national patient charity and the BHF Cardiovascular Sciences Research Centre at the University of Leicester. Looking to the future, Mr. Owens inspired the audience with the patient charity’s vision that “through research, over the next 20 years, we can turn Aortic Dissection from a cardiovascular catastrophe into a preventable disease.” ■



Mr. Gareth Owens & Prof. Gavin Murphy gave the keynote talk in the Aortic Aneurysm session of the SCTS Annual Meeting

3 Doctors: Patient, husband and surgeon's experiences of surgery (and complications) for necrotising pneumonia and empyema

Ujjawal Kumar, Medical Student, Royal Papworth Hospital & University of Cambridge



I recently undertook a student-selected attachment in cardiothoracic surgery at Royal Papworth Hospital. In addition to knowledge of surgery and professional values, I learnt about life and humanity. The role-reversal from doctor to patient in this case showed me the limitations of a purely intellectual understanding when it comes to empathising with patients' perioperative experiences. While surgery and perioperative medicine is a part of everyday life for those in this speciality, for most people, a hospital admission itself is life-changing, let alone cardiothoracic surgery. This will always stay with me.

Cardiothoracic surgeons have immense responsibility – they really do have patients' lives in their hands.

The neurologist patient's perspective: Dr Erin Drazich-Taylor

What started with a sore throat became fever, cough, lack of appetite, exhaustion, and back pain. When I noticed I was short of breath at rest, I realised this was more than just a simple viral respiratory illness. Despite my rapid admission with a right lobar pneumonia and pleural effusion, I did not realise the seriousness. People think that knowledge gives us power. As a doctor, I knew about pneumonia and empyema. I did not think that they could truly trouble me, but when medical management failed, I was referred for surgery.





After my first extubation, I was confronted with the absolute necessity of having a body. You must breathe before you can think. I couldn't breathe. I panicked. I couldn't tolerate BiPAP. High Flow Oxygen was better, but I tired. I asked the team to reintubate, thinking as I did, that I would die without ever waking again.

Ten days later, I woke up in pain, having lost a third of my body weight. Hallucinations interrupted my sleep. I experienced extreme anxiety and paranoia. I could not operate my phone or use a pen. Having worked on ITU, I intellectually understood the impact it can have on mental and physical health, but it's another thing to experience it. I was completely at the mercy of others. Everyone was kind and caring, but it was a completely uncomfortable and disconcerting position. I was not myself. I was terrified that I would never be again. My physical vulnerability completely shook my identity. Slowly things improved. I regained small measures of my independence. Gradually, drains and lines were removed. After five weeks in hospital, I finally came home.

Six months later, I am still weak. I have limited endurance but am striving to increase my fitness. Recovery has been frustratingly slow, but I have learned to have patience and appreciate progress. I'm sure there are many life lessons to take away from this experience, informing how I approach my career in medicine, relationships with family,

friends, and myself. For now, I'm enjoying being with my daughter and husband, being able to dash up the stairs, and being able to sing again.

**The microbiologist husband's perspective:
Dr Stuart Drazich-Taylor**

At the start, we suspected a streptococcus could be responsible given the lobar consolidation and high CRP. Pre-drain chest X-rays were dreadful – dense consolidation, a large effusion and midline shift. We were gobsmacked. My heart sank when pleural cultures grew Group A Streptococcus, which can cause severe toxin-mediated disease such as necrotising fasciitis with significant morbidity and mortality. Erin was swapped

to benzylpenicillin and clindamycin, as clindamycin can switch off toxin production. I hoped the combination would be enough.

After conservative treatment failed, we knew it would be over to the surgeons. I vividly remember the phone call from Mr. Coonar that surgery had been more complicated than expected and that she was in ITU. I felt lost but confident that he had a plan to get her better.

ITU was dreadful. The first night on ITU, Erin was intubated, ventilated, and deeply sedated. The next few days we were able to communicate despite Erin's classically bad doctors' handwriting. One of the worst days was when Erin developed a ventilator acquired pneumonia. The bug was Klebsiella, a typical in VAP, alongside pseudomonas and Staphylococcus aureus. It is awful to see a loved one rigoring while intubated. Erin was a different person post-extubation. Before, there had been a robust Italian American woman. Now, her voice was soft, reedy and she was desperately anxious. All I could do was to sit with her and give her reassurance.

The final microbiological 'lowlight' was a sputum sample growing a mycobacterium. The

wait to exclude tuberculosis seemed endless but we were reassured when this came back as most likely just a contaminant.

The final stage of Erin's illness was rehabilitation. Her job was to eat everything and engage in gentle cycling whilst looking out the window. The view from a Papworth room is incredible (not worth a 10-day ITU stay!) but close.

The day Erin finally came home it snowed. She snuck out early to surprise our daughter and I at home. Seeing her footprints in the snow was profound. She was ready to make her mark on the world again.

**The surgeon's perspective:
Mr. Aman Coonar**

As a student I was told, "watch out for healthcare staff, because if it can go wrong, it probably will". Erin came with pneumonia and a 'parapneumonic collection'. I mulled it over, and when I saw her "not right", decided to operate, thinking "I'd better do it myself".

A 'quick VATS washout' became a thoracotomy when blood poured from the clot that had been the lower lobe. It wouldn't stop. What to do? Resect? It would probably stop the bleeding, but that's half the right lung!

During COVID I often packed and put a Vac-sponge on the lung. Sometimes bleeding stopped, sepsis settled, wounds stabilised. We went down that route. I expected to go back a few times to deal with bleeding and progressive resection of necrotic lung, but she began to improve. No lung lost! Many weeks later, it was great to see their smiles in clinic – humbled again... I'm grateful that it also goes right. ■



Training the Future Cardiothoracic Surgeons – Is the current training curriculum fit for purpose?

Ahmed Shafi, ST3 Trainee, Royal Papworth Hospital, Cambridge
 Muhammad Rafiq, Consultant Cardiac and Transplant Surgeon,
 Royal Papworth Hospital, Cambridge



Cardiothoracic surgery is a dynamic and continuously evolving specialty due to the rapid innovations and advancements, with surgeons playing a significant role in the scientific breakthroughs. However, we must continually keep up-to-date with the new technological advances or risk becoming redundant.

Thoracic surgery has been able to maintain and increase the number of operations that are performed as they have been able to utilize technology to enable surgery with reduced morbidity and will benefit from early detection from lung cancer screening. Thoracic surgery has seen a significant shift away from the standard open thoracotomy approach to a minimally invasive approach going from multi-portal VATS to uni-portal VATS and now robotics surgery.

In comparison, cardiac surgery with associated higher risk operations, and the major advances in medical diagnosis and treatments of coronary artery and valvular disease has seen the number of total operations steadily decline as interventional endovascular options have evolved and revolutionized the treatment of acute coronary syndromes and valvular heart disease as seen by the establishment of TAVI and transcatheter mitral repair programs.

The Trend in the Management of Cardiac Disease

The role of interventional cardiologists has been increasing over the last decade, with the 2022 National Adult Cardiac Surgery Audit

(NACSA) report (https://www.nicor.org.uk/wp-content/uploads/2022/06/NACSA_2022-FINAL.pdf), showed that the ratio of patients undergoing PCI compared to CABG has gradually been increasing since 2013/14, from around 5:1 up to 7:1 in 2019/20. However, the sudden increase of the ratio to 10:1 seen in 2020/21 can be explained due to the COVID pandemic. However, the trend of the last decade is clear and this is in part related to the use of PCI in treating acute coronary syndromes and its reduced requirements of hospital resources in term of intensive care and length of hospital admissions.

A similar trend is seen in aortic valve procedures, as the criteria for TAVI have broadened in recent years the number of TAVI's has rapidly increased. In 2019/20 the number of TAVI procedures overtook isolated surgical AVR for the first time and further accelerated during the COVID pandemic.

The Trend in the Number of Cardiac Operations

Training in the United Kingdom has recently changed from 8 to 7 years; this has coincided with a number of factors that have resulted in trainee anxiety. Since 2013, the average number of cardiac operations per consultant has steadily declined, which saw a dramatic decline during the pandemic. Although the pandemic had a significant impact on

surgical operations, and a slow recovery to a new norm is in progress, this does not hide the fact that the overall operative numbers have steadily declined thereby effecting the number of training cases.

Additionally, the recovery phase has furthermore highlighted several challenges that have been brought to the forefront following the pandemic. Staffing has been significantly affected during the pandemic resulting in exhaustion and loss of job satisfaction resulting in several staffing shortages. Additionally, patients on the waiting list who are now to be operated on have had further disease progression increasing the risk of surgery together with managerial pressures, consultants will often perform these operations resulting in further loss of training opportunities.

Sub-specialization in Cardiac Surgery

Cardiac surgery has been reinventing itself since its earliest days, and must continue to do so as the patient population changes while technological advances create new treatment standards. Moreover, outcomes after cardiothoracic surgery have significantly improved over time, while accountability for outcomes has also increased with public reporting. Previously a cardiothoracic surgeon would be able to offer treatment across cardiac and thoracic disease, however we have now moved to sub-specialization, either dedicating to cardiac or thoracic surgery. Additionally, in cardiac surgery

there is further specialization of, for example, becoming a mitral surgeon, an aortic surgery or coronary surgeon.

Challenges Facing Training

This raises a number of challenges facing today's trainees, with the reduced training time, the European working time directive, the declining number of operations and increasing complexity of patients, combined with the adaptation of new technologies, one questions whether trainees ultimately will be competent at the end of training.

With the widespread adoption of endovascular treatment options, cardiac surgeons are now beginning to utilize minimally invasive approaches including mini-lateral thoracotomy for valve operations, mini-sternotomies or in some cases robotic surgery. However, each of these have their own associated learning curve. Most trainees will ultimately go on fellowships to gain further experience in their

sub-specialty that they aim to pursue, which has also increased within the last decade.

Whether transcatheter therapies or minimally invasive surgery, the biggest challenge remains the additional learning curves. Moving from more to less invasive means trading tools and techniques of visualization. To be successful, future surgeons will require expertise in traditional surgical skills, multimodality imaging, and catheter-based skills.

Although no training program will be perfect, one can consider that trainees are allocated to more complex cases during their training. For example, in the first year the emphasis should be on becoming confident on sternotomy, cannulation, mammary harvesting, going on and weaning off bypass and closure. This can then progress to spending a dedicated time in coronary revascularization meeting a set standard within a specified time frame, moving on to aortic valve surgery, mitral valve surgery and complex aortic procedures.

Furthermore, exchange programs could be incorporated into the training curriculum, as many international centers will have a significant difference in disease prevalence, for example in Asia and Africa trainees will become familiar with mitral valve surgery at an earlier stage of training. Therefore, setting up international exchange programs integrated into the training curriculum would be highly valuable and may even counteract the lack of operations within a specific category in the UK.

Conclusion

Cardiothoracic surgery has been and will always remain a rapidly evolving specialty and is impossible to predict what cardiac surgeons will be performing in 30 years' time, we must begin to prepare for this from now. Training must adapt and address the current issues and adopt the necessary steps to ensure that future surgeons are competent and trained to meet the future demands of the specialty. ■

Running on empty

Chris Efthymiou, Consultant Cardiac Surgeon, Glenfield Hospital, Leicester



Brexit, COVID-19, war, avian flu etc, etc. We have heard many reasons why our usual suppliers of medical equipment, medicines and sundries have simply dried up. However, medical product supply chain disruptions are not new, they are a decades-long problem and supply shortages are not just a UK problem.

The EU and America are also reporting supply issues. In Mexico, chronic medicine shortages are so dire that many prescriptions couldn't be fulfilled in 2022.

Furthermore, the problem is being worsened by some countries stockpiling supplies to protect their own limited resources.

Our very own perfusion council is frequently discussing this problem, but we don't have a solution. We all try our best to be compliant and helpful, "your usual

cannula isn't available" "the PV vent is not your normal one". The surgeon just carries on. Adapting to the variation, changing the usual procedure.

But when does it affect patient care? I would argue more often than we think. On one occasion my 'floppy' vent was replaced with a rigid one. Operation carried on well until the assistant mistook it for a cardiomy sucker and pulled it out. No damage done, but nevertheless not an ideal situation.

I can site numerous examples of supply shortages. From drapes to pacing wires we plod on. But some compromises may be a recipe for disaster. When a unit that has always been using pacing wires where colour X is on the atrium and colour Y on the ventricle, but supply chain shortages

mean that only the opposite are available. How long is it before a fatality occurs?

Do I have a solution rather than grumbling? Sadly I don't have many as these issues are complex, multi-national and multi-factorial. But we can help:

Be reactive in making supply chains more resilient, identify the shortage early so the lead time is longer. Invest in automated technology that reports depot shortages early.

Be analytical by finding what supply is hard to get and substituting early for a more ubiquitous alternative.

Be strategic with commissioning. Consider the industry norm rather than an esoteric supplier

Be minimalist, if it isn't usually needed in the operation, learn to do without. Less consumables, less supply chain issues. ■

An Introduction to the Australia New Zealand Congenital Outcomes Registry for Surgery (ANZCORS)

Kim Betts, Curtin University, Perth, Australia

Supreet Marathe, Prem Venugopal and Nelson Alphonso,
Cardiac Surgery, Queensland Children's Hospital, Brisbane, Australia
and the University of Queensland, Brisbane, Australia



ANZCORS was established in 2019 with the aim of creating a data resource like the Central Cardiac Audit Database congenital heart disease dataset (CCAD) specific to the paediatric cardiac surgical population of Australia and New Zealand (ANZ). ANZCORS was developed with the primary purpose of performing bi-national benchmarking of quality indicators following paediatric cardiac surgery in ANZ. Prior to 2019, there was no benchmarking in ANZ. Instead, each surgical site contributed their data to the European Congenital Heart Surgery Association (ECHSA) database without any pre-determined mechanism for quality control or benchmarking specific to ANZ.

Sites and Governance

ANZCORS includes data from all five paediatric cardiac centres in ANZ, including 1) Starship Children's Hospital, Auckland 2) Queensland Children's Hospital, Brisbane 3) Royal Children's Hospital, Melbourne 4) Perth Children's Hospital and 5) Children's Hospital at Westmead, Sydney. These five centres together perform every paediatric cardiac surgical procedure in ANZ. Data and project management for ANZCORS is provided by a management team based at the Queensland Children's Hospital. Oversight is provided by a bi-national Steering Committee that includes the Director from each unit and representation from the Cardiac Society of ANZ (CSANZ) and ANZ Society of Cardiothoracic Surgery (ANZCTS). Legal agreements for data sharing

between all states in Australia were finalised. ANZCORS met the requirements of the New Zealand Privacy Impact Assessment and was granted Australian national ethics approval (HREC/19/QCHQ/49534).

Patients and Data

Perioperative data on all cardiac procedures including ECMO performed at any of the five centres are included in the Registry. Data is retrieved from the hospital cardiac database system at each site by a designated data manager, validated regularly by each surgical team and transferred securely at six monthly intervals. Currently, the dataset and data

dictionary closely mirrors the ECHSA dataset and includes complete data on 30,000 patients from 2013 onwards.

Benchmarking

Since 2019, the ANZCORS has provided an annual benchmarking report across 34 procedure groups, comparing the 30-day mortality across the five surgical sites by using a non-risk adjusted funnel plot like CCAD. Each report uses a rolling five-year time-period, to permit enough operations in each group to produce robust estimates. Information about key morbidity outcomes, ICU stay, and hospital stay is also detailed in the report.

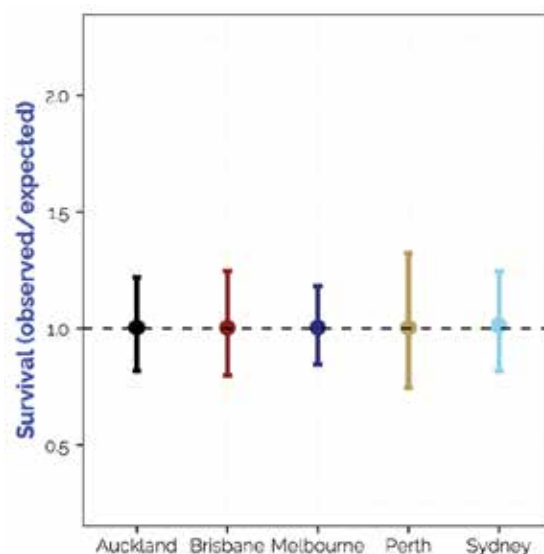


Figure 1: Risk adjusted machine learning benchmarking using forest plots for all procedures across ANZ from 2016-2021. The y-axis shows the ratio of the observed survival and expected survival calculated from the model with 95% confidence intervals; the x-axis corresponds to each surgical site

Risk adjustment using machine learning

There is growing support for the use of machine learning (ML) in predicting outcomes in cardiac surgery, owing to the increasing recognition that the risk of morbidity and mortality after cardiac surgery is non-linear. Another potential advantage of adopting ML, compared with generalised linear models, is that they may be better suited to handling heterogenous and sparse data with rare outcomes. In 2022, ANZCORS developed a 30-day mortality risk adjustment model using different ML algorithms. We found that a gradient boosted tree (GBT) outperformed an artificial neural network and logistic regression with regularisation, achieving an AUC=0.87 (95% CI = 0.82, 0.92). The GBT model achieved a level of discrimination comparable to the PRAiS2

and STS-CHSD mortality risk models (both which obtained an AUC=0.86). The final model was presented at the 36th Meeting of the European Association of Cardio-Thoracic Surgery (Milan, October 2022) and has since been published in the European Journal of Cardio-Thoracic Surgery.

By 2024 we will have accrued enough data within ANZCORS to externally validate the model (on two years of data from 2022-2023) and will begin the process of updating the model to ensure it remains valid to this dynamic patient population over time. In the future, we plan to expand the use of our ML models to encompass more outcomes including longer-term mortality and key indicators of post-surgical morbidity.

Implementation of the ANZCORS Annual Report

ANZCORS recently completed 20 qualitative in-depth interviews with a representative Queensland stakeholder cohort to inform our dissemination strategy. Stakeholders interviewed included parents, surgeons, cardiologists, nurses, anaesthetists, perfusionists and administrators. Open-ended questions were used to examine priorities for communication of surgical outcome

data. Overall, all stakeholders expressed a need for this information and viewed it as a positive learning opportunity. The interviews highlighted the mixed viewpoints and differing needs of parents and health professionals about what should be included and how it should be presented. Parents requested contextualisation and clarity in communication. Health professionals expressed a need for 1) detailed information to counsel families, ensuring the standardisation of messaging regarding risk and 2) ability to evaluate local performance against a national average to ensure local practice was at an optimal standard. ANZCORS is partnering with HeartKids (the only parent organisation supporting children and families with CHD in ANZ) to pilot consumer co-designed dissemination of this information to parents, clinicians, and health service providers in Queensland. This will provide important information for a sustainable scale-up bi-nationally. Implementation will be guided by principles of the Consolidated Framework for Implementation Research (CFIR).

ANZCORS for research

ANZCORS is also a valuable research resource and is currently being used for

several population-based outcomes-oriented research projects including trisomy 21, post-cardiac surgery ECMO, arch repair and low weight at surgery.

Looking beyond clinical outcomes

Ongoing risk analysis of a bi-national dataset is vital for meaningful informed consent and counselling for families. Accurate risk prediction enables modification of existing clinical practices based on objective evidence. Linkage with the national Death Registry will enable prediction of longer-term outcomes, helping to prepare parents and families for the journey they face. A likely consequence of ANZCORS will be the implementation of ML models in everyday clinical practice. With cloud-based computing power being increasingly available, an immense amount of data can be processed remotely without software specific knowledge or installation, making this progressively accessible on a day-to-day basis. By embracing this AI wave early, ANZCORS aims to take the first step in developing precision or individualized patient treatment for this group of patients and change the way future generations of surgeons are trained. ■

New Consultant Appointments November 2022 to July 2023 ...

Name	Hospital	Consultant or Locum Consultant	Starting Date
Mr Umar Hamid	Nottingham University Hospitals	Consultant Cardiac Surgeon	November 2022
Mr Jacob Chacko	Nottingham University Hospitals	Consultant Cardiac Surgeon	November 2022
Mr Mario de Luca Jr	University College London Hospitals	Locum Consultant Thoracic Surgeon	January 2023
Mrs María Monteagudo Vela	Royal Brompton & Harefield NHS Foundation Trust	Consultant Cardiothoracic and Transplant Surgeon	January 2023
Mr Mohamed Othman	Royal Brompton & Harefield NHS Foundation Trust	Consultant Cardiac and Aortic Surgeon	February 2023
Mr Walid Elmahdy	Leeds General Infirmary	Consultant Cardiac Surgeon	March 2023
Mr Haytham Sabry	Liverpool Heart & Chest Hospital	Locum Consultant Cardiac Surgeon	March 2023
Ms Hassiba Smail	Royal Papworth Hospital	Locum Consultant Cardiac & Transplant Surgeon	April 2023
Mr Pouya Youssefi	St George's Hospital, London	Locum Consultant Cardiac Surgeon	May 2023
Miss Christina Viola	The Norfolk and Norwich University Hospital	Consultant Thoracic Surgeon	July 2023
Mr Luigi Ventura	Bristol Royal Infirmary	Locum Consultant Thoracic Surgeon	July 2023
Miss Carol Tan	Guy's Hospital	Consultant Thoracic Surgeon	August 2023
Mr Duncan Steele	Liverpool Heart & Chest Hospital	Consultant Cardiac Surgeon	October 2023

A trial for every patient



Sue Page, Department of Cardiovascular Sciences, University of Leicester
 Hardeep Aujla, Senior Research Manager, University of Leicester
 Sarah Murray, National PPI Group Chair, National Cardiac Surgery Clinical Trials Initiative
 Gavin Murphy, Consultant Cardiac Surgeon, Glenfield Hospital
 Mahmoud Loubani, Consultant Cardiac Surgeon, Glenfield Hospital
 Enoch Akowuah, Consultant Cardiac Surgeon, James Cook University Hospital, Middlesbrough
 Laura Green, Consultant Haematologist, NHS Blood & Transplant, Barts Health NHS Trust
 Jeremy Dearling, PPI Representative

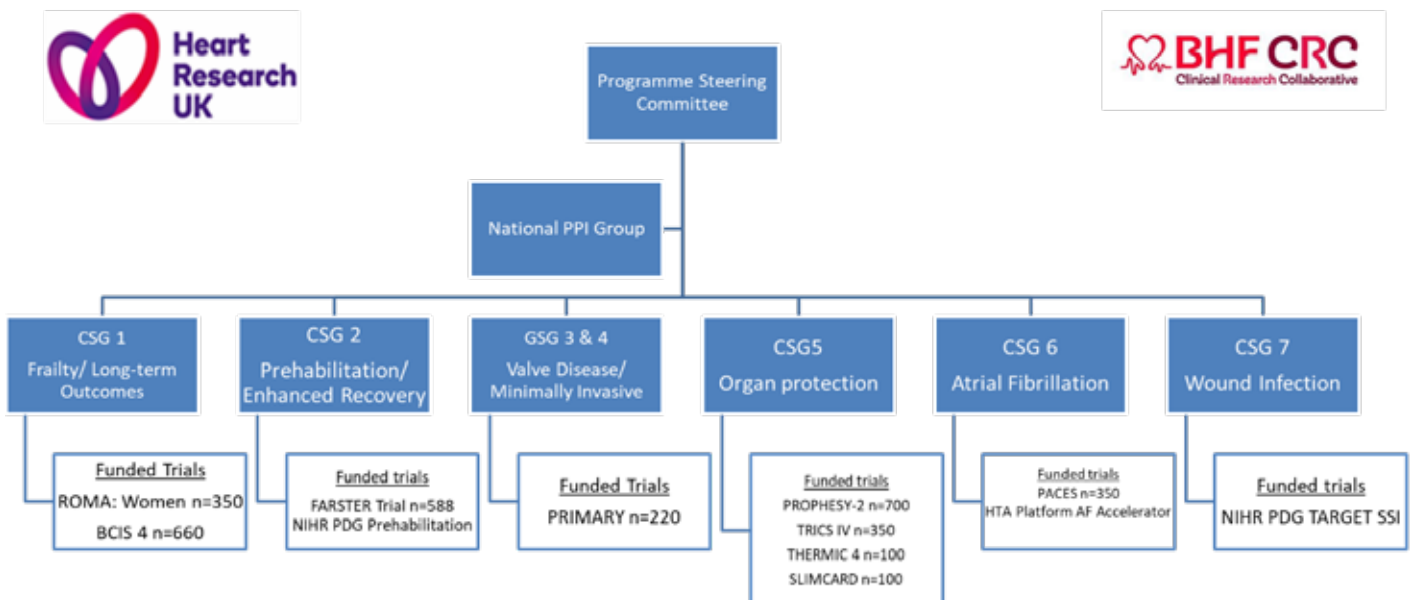


The Trial for Every Patient initiative, launched at the Annual Scientific Meeting in Birmingham in 2023, aims to provide a diverse portfolio of high-quality clinical trials that will have broad appeal to surgeons and people undergoing cardiac surgery across UK centres.

This builds on the unique research infrastructure in the UK and our proven ability to deliver practice changing multicentre clinical trials. There are complementary initiatives in Congenital Surgery led by Nigel Drury and Massimo Caputo, and Thoracic Surgery led by Eric Lim and Babu Naidu.

Following on from the **Heart Research UK** funded **James Lind Alliance Priority Setting Partnership in Cardiac Surgery**, <https://www.jla.nihr.ac.uk/priority-setting-partnerships/heart-surgery/> major stakeholders from across the UK have contributed to the development of a national patient-centred cardiac surgery trials programme. It has been endorsed by both the Society for Cardiothoracic Surgery in Great Britain and Ireland (SCTS) and the Royal College of Surgeons of England. The initiative was funded by **Heart Research UK** and is supported by the **British Heart Foundation Clinical Research Collaborative**.

Starting in September 2020, the initiative has supported 155 separate stakeholder meetings with over 2338 attendees, of whom 751 were members of the public. We have collaborated with the National Cardiac Surgery PPI Group to host 9 separate PPI led stakeholder meetings for the studies under development, with a total of 176 participants. From a total of 7 clinical study groups (CSG), 12 separate studies have been funded. Two of these are collaborations with the North American Cardiothoracic Surgical Trials Network (CTSN), and five are linked to international trial consortia.



Clinical Study Group 1: Managing Chronic Conditions/ Improving Long-term Outcomes

Title: ROMA:Women trial	Chief Investigators: Gaudino (International) Murphy (UK)	CTU Contact: roma@le.ac.uk	Funder: Cornell University, New York
Participants: CABG in 2000 Women undergoing CABG UK Arm n=350	Intervention: Multiple arterial grafts	Comparator: Single Arterial Graft	Outcomes Major adverse cardiovascular events or death

Title: BCIS4 trial	Chief Investigators: Murphy/ Perera (UK) STICH 3 Consortium (International)	CTU Contact: bcis4@le.ac.uk	Funder: National Institute for Health and Care Research
Participants: n=660 people with ejection fraction <40%, myocardial ischaemia and suitable for CABG & PCI. BCIS4 will contribute to the international STICH 3 trial (n=2800)	Intervention: CABG	Comparator: PCI	Outcomes Death or cardiovascular hospitalisation (BCIS4) All cause Death (STICH 3)

Clinical Study Group 2: Prehabilitation/ Enhanced Recovery

Title: FARSTER care	Chief Investigator: Dumbor Ngaage	CTU Contact: Dumbor.ngaage@nhs.net	Funder: National Institute for Health and Care Research
Participants: 588 adults undergoing elective or urgent cardiac surgery with sternotomy	Intervention: Accelerated care pathway post discharge and early rehabilitation	Comparator: Standard care	Outcomes Change in physical function and quality of life at 6 months

Prehabilitation Research: A NIHR Programme Development Grant awarded to Dr Maria Pufulete from Bristol is supporting workshops and preliminary work to design a future trial of prehabilitation in UK cardiac surgery. To take part please contact Sue Page on sp504@leicester.ac.uk or Maria on Maria.Pufulete@bristol.ac.uk

Clinical Study Groups 4: Minimally Invasive and Heart Valve Surgery

Title: PRIMARY trial	Chief Investigators: Chikwe (International), Akowuah (UK)	CTU Contact: enoch.akowuah@nhs.net	Funder: National Heart Lung and Blood Institute (CTSN)
Participants: n=450 people with primary degenerative mitral regurgitation UK Arm n=100	Intervention: Transcatheter edge-to-edge repair	Comparator: Mitral Valve repair	Outcomes Death, reintervention, heart failure hospitalisation or severe regurgitation at 3 years

Clinical Study Group 5: Organ Protection

Title: PROPHECY-2 trial	Chief Investigators: Dr Laura Green	CTU Contact: laura.green27@nhs.net	Funder: National Institute for Health and Care Research
Participants: n=496 people with coagulopathic bleeding post-surgery	Intervention: Prothrombin Complex Concentrate (PCC) 1,500 IU if ≤70kg or 2,000 IU if >70kg	Comparator: Fresh Frozen Plasma	Outcomes Death, infection, or organ failure at 90 days

Title: TRICS IV trial	Chief Investigators: Mazer/ Shehata (International) Murphy (UK)	CTU Contact: tricsiv@leicester.ac.uk	Funder: National Institute for Health and Care Research
Participants: n=1760 people aged 65 or younger and EuroScore ≥6 UK Arm n=320	Intervention: Transfusion threshold <75 g/L	Comparator: Transfusion threshold <95 g/L	Outcomes Death, stroke, MI, or renal failure within 6 months

Title: THERMIC 4 trial	Chief Investigators: Ann Cheng (Trainee led)	CTU Contact: ann.cheng1@nhs.net	Funder: British Heart Foundation
Participants: n=100 people undergoing cardiac surgery with cardiopulmonary bypass	Intervention: Active normothermia >36.5°C during bypass	Comparator: Hypothermia 32-35°C during bypass	Outcomes Feasibility of recruitment and adherences in a trainee led trial

Clinical Study Group 6: Atrial Fibrillation

Title: PACES trial	Chief Investigators: Gelijns (International), Akowuah (UK)
Participants: n=3500 people with new post operative atrial fibrillation UK Arm n=400	Intervention: Antiplatelets only
CTU Contact: enoch.akowuah@nhs.net	Funder: National Heart Lung and Blood Institute (CTSN)
Comparator: Oral anticoagulant plus antiplatelet	Outcomes Death, stroke, MI, arterial or venous thromboembolism at 180 days

Atrial Fibrillation Trials Platform: A NIHR

Health Technology Assessment Accelerator Award to Dr Maria Pufulete from Bristol is supporting workshops and preliminary work to design a future trial of multi-arm platform trial of interventions for new onset atrial fibrillation in UK cardiac surgery centres. To take part please contact Sue Page on sp504@leicester.ac.uk or Maria on Maria.Pufulete@bristol.ac.uk or Ben Gibbison on ben.gibbison@bristol.ac.uk

Clinical Study Group 7: Wound Infection

TARGET Wound Infection: The Cardiothoracic Interdisciplinary Research Network leads Ricky Vaja (West London) and Luke Rogers (South West) were awarded a NIHR Programme Development Grant to develop a clinical programme focused on targeted wound infection prevention that can reduce antimicrobial resistance. A final workshop to discuss the results will be hosted in June 2023. To take part in the next phase of this work please contact Professor Judith Tanner Judith.Tanner@nottingham.ac.uk

Get Involved

If you are interested in becoming a local principal investigator or recruiting your patients to this initiative, please get in touch via the email links for each trial.

Join the Steering Committee

We will establish a Steering Committee of all the Stakeholders; SCTS, ACTACC, the National PPI Group, the Trial Chief Investigators, and the funders to support and coordinate the initiative. We expect that the Steering Committee will meet three times per month initially to establish research support across all UK cardiac centres.

If you want to join the Steering Group or get involved, please contact Gavin Murphy at gjm19@le.ac.uk or Mrs Sue Page sp504@le.ac.uk who manages the initiative.

We are committed to inclusivity. If you wish to get involved in any of the clinical study groups, either as attendees, or as study leads, bringing new ideas to the initiative, please email us on hearturgerypsp@leicester.ac.uk or sp504@leicester.ac.uk. Please also follow our twitter handle [@HeartSurgeryPSP](https://twitter.com/HeartSurgeryPSP) for updates. ■

Minimally invasive cardiac surgery: Insights from Instituto Cardiocentro Ticino, Lugano – Switzerland



Amer Harky, ST6 Cardiothoracic Surgery, Liverpool Heart and Chest Hospital



The team at Lugano

Instituto Cardiocentro is the main cardiac centre that serves the city of Lugano and region of Ticino. The unit is separate from the thoracic surgery which is based in a different hospital; therefore, the hospital is purely cardiology and cardiac surgery units. As part of my SCTS Ionescu travel fellowship award, I attended the Instituto Cardiocentro to enhance my knowledge about minimally invasive cardiac surgery, including minimally invasive direct coronary artery bypass (MIDCAB) and Mitral valve surgery (MIMS).

The hospital has 40 wards and 12 intensive care beds that are shared among the cardiology and cardiac surgery team across three floors. The cardiac surgery unit staffing is led by Prof Dr. Stefanos Demertzis, the consultant team has four members and three junior doctors that cover the work in 24-hour shift / on-call pattern. There are four theatres, two of them are mainly for hybrid procedures including EP and TAVI team while the other two theatres are for cardiac surgery.

The cardiac surgery case-mix is variable which is usually led by MIDCAB, and MIMS followed by sternotomy CABG and less often, acute aortic emergencies. Their practice is well established in terms of patient flow, extensive pre-op patient review, MDT discussions, thorough investigations, and post-op follow-up. Regardless of the operation, each patient will have a peri-operative transoesophageal echocardiogram, and all CABG patients require transit time flow measurements to be

documented up to satisfactory flows. During each out-patient review, each patient is allocated a 30-minute slot for review, discussion and follow-up. This allows sufficient time to address all the necessary questions that patients and families could have about their peri-operative experience.

On a typical day, there is only one case of elective / urgent cardiac surgery patient per each theatre as the staffing and working hours

are scheduled to complete the case by no later than 3pm, with knife-to-skin time usually around 8am. Following surgery, the patient is moved to ICU, which is led by cardiac intensive care specialists with regular MDT rounds twice a day, one in the morning and one in the afternoon. This coordinated work has facilitated a multi-modality approach to patient care and optimised, safe patient flow.

Once the patient is on the ward, physiotherapy and specialist nurses have a strong role in keeping the care going, they work closely with cardiac surgery team and have regular patient reviews, often twice daily. They provide necessary care and support for early and safe patient discharge.

Instituto Cardiocentro uses specialised drones to send urgent samples to the nearest advanced lab which has been working very well for them. These drones are operated by a dedicated team and samples are tracked electronically to achieve high standard of care.

The overall experience at Instituto Cardiocentro, Lugano has been outstanding. This reflects the excellent care and service for each patient, from the time of referring patients for cardiac surgery, to peri-operative assessment, teamwork, juniors trainings, mentorship and overall patient journey. ■



Mitral valve surgery



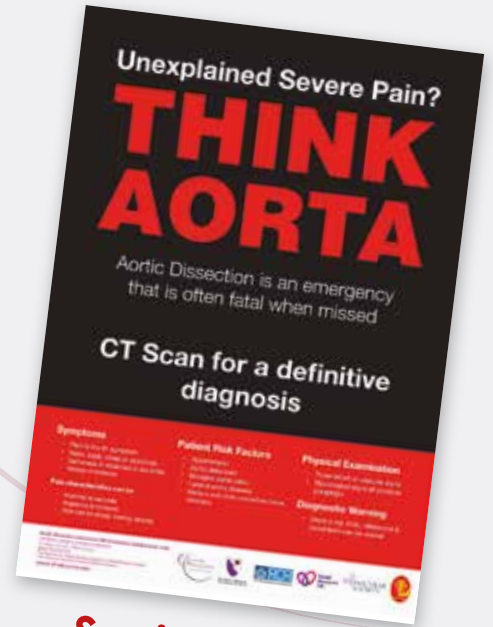
Instituto cardiocentro uses specialised drones to send urgent samples to the nearest advanced lab

Aortic Dissection Awareness

The Patient Charity



Supporting Patients



Saving Lives



Improving Care



Enabling Research



Aortic Dissection Awareness UK & Ireland
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aorticdissectionawareness.org

Barts Minimally Invasive Mitral Surgery (MIMS) programme

Dincer Aktuerk, Consultant Cardiothoracic Surgeon, Barts Health NHS Trust



In September 2021 the Barts Minimally Invasive Mitral Surgery (MIMS) programme was launched after formation of an international collaborative with the Robert-Bosch-Hospital Stuttgart, Germany. Halfway between the iconic Mercedes Benz and Porsche museums tucked away surrounded by wine estates lies the Robert-Bosch-Hospital (RBK). “Das Auto” is at the heart of the local manufacturing sector, but the region is also home to many general and electrical engineering companies as well as firms engaged in clean energy. Robert Bosch, a German engineer, inventor and philanthropist, fulfilled a lifelong dream by donating a hospital on the forefront of innovation to the people of Stuttgart.

The Cardiovascular Surgery programme under Professor Ulrich Franke is one of Germany’s leading specialist centres offering a full range of contemporary and state-of-the-art minimally invasive, transcatheter and robotic treatments. In 2019/20 over 2000 cardiac cases were performed, including combined over 800 minimally invasive endoscopic mitral, robotic mitral, coronary, myxoma and ASD operations, with an impressive mitral repair rate of 99%. Over fifty percent of the surgical faculty are female, there is a strong academic staff component,



Lower left to right: Aswathy Dileep (SCP), Nina Darcen (theatre nurse), Lani Cunanan (ODP), Emma Valderueda (theatre nurse), Sara McKeown (ODP). Upper left to right: Dincer Aktuerk (Cardiac surgeon), Bonnie Kyle (Anaesthetist), Prof. Franke (Chief of Cardiac Surgery)

and a willingness to hire rising stars to ensure a dynamic and innovative department.

Right from the start it was clear this was an exceptional centre as Prof. Franke unveiled the schedule for our one week stay, starting with a daily morning brief, followed by twice-daily theatre sessions, de-brief, and a team visit to the marvellous Mercedes-Benz Museum.

The Barts team were impressed by the operational fluency of RBK’s minimally invasive programme, with each one of us receiving expert mentorship from our specialist counterparts in surgery, anaesthesia, perfusion, surgical care practice, and scrub nursing. But uniquely our visit also enabled us to learn and troubleshoot together as a team, in a high-volume centre, and in a dedicated environment away from the delivery of direct clinical care. We found the whole team debrief particularly informative for offering crucial insights into the introduction of a safe and effective service, for shortening the learning curve, and for generating a team culture of reflection and adaptation.

We returned to Barts armed with a clear appreciation of what we wanted the programme to look like and how we were going to deliver it.

As a team we were able to rapidly produce the first iterations of key SOPs and in-theatre aide memoires, as well as a first-of-its kind Whole Team Sequential Steps document, based on our learning as a team from Stuttgart. The shared insight into the roles of the wider team afforded from our visit to RBK was instrumental to the successful introduction of a safe MIMS service and placed us further up the

learning curve right from the very first case.

Thanks to the SCTS Ionescu Fellowship Award we were able to build relationships with an internationally renowned unit and successfully introduce minimally invasive mitral surgery proctored by Prof. Franke to Barts Heart Centre. ■



Daily morning briefing with Prof. Franke



Chris Oscier (Anaesthetist), observing a robotic mitral valve repair on the console



Lani Cunanan (ODP) observing robotic coronary surgery

Three-week elective in paediatric cardiac surgery at Birmingham Children's Hospital, Spring 2022



Caleb Johnson, FY1, General Surgery, Cumberland Infirmary, Carlisle



On my last day in Birmingham. The sun finally decided to come out!

The highlight of my second week was having the opportunity to scrub in and assist in a minor way with a VSD repair. Though the operation at its core in this case was a simple 'plugging a hole' as the registrar put it, I thought it was breathtaking. I had seen and scrubbed in with adult cardiac procedures on placement, but the sheer size of this 2-month-old heart was remarkable. Being able to reach out and touch it as it began to revive after being on bypass is a moment I won't soon forget.

One of my best experiences during the elective took place in the outpatient department. This happens from the

cardiology side of management. Having the opportunity to take histories, perform clinical exams, and look at real time echocardiography was an invaluable experience. This let me see the longitudinal aspect of caring for these patients as they grow, educating them and their parents, and ultimately transitioning them into adult-focused services. With the advancement in treating congenital heart defects there is a stark growth in adults with varying cardiac morphology and physiology. This is a novel, yet exciting field of medicine and surgery on the horizon.

During my placement I was able to attend MDT meetings, ITU handovers, outpatient clinics, and of course scrubbing in during theatre. There was something so special about seeing hearts that size, to reflect on the journey ahead and to have a small part in it. I can't thank all those who allowed for this experience enough. I was challenged, learned so much, and it's something that I won't soon forget as I progress in my career aspirations. ■

I have long been fascinated with the field of congenital heart defects and desired to pursue an elective in this field. Originally, I planned to go to Hospital for Sick Children in Toronto, but due to Covid restrictions this was rearranged domestically to Birmingham Children's Hospital. This is a renowned centre in the midlands with a superb paediatric cardiac unit and I couldn't wait to get started!

Upon arrival, I met with one of my co-supervisors who gave me an induction and tour around the hospital introducing me to colleagues such as surgeons, cardiologists, and specialist nurses. He reinforced that this area of medicine and surgery is highly complex and takes years to understand, but reassured me this comes with time. His focus for me was to understand the overall management of these patients between various departments and how they remained structured to facilitate the best patient-centred care.



My view approaching the hospital each morning

Demitted Roles

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

Role	Name
SCTS Elected Trustee/Thoracic Surgery Co-Chair	Aman Coonar
SCTS Elected Trustee/Cardiac Surgery Co-Chair	Enoch Akowuah
SCTS Trust Appointed Doctor Lead (Thoracic)	Kandadai Rammohan
SCTS Congenital Cardiac Surgery Education Lead	Attilio Lotto
SCTS Honorary Treasurer	Amal Bose
SCTS WiCTS Co-Chair/Student Education Co-Lead	Karen Booth
SCTS Meetings Team NAHP Lead	Daisy Sandeman

New Roles

Congratulations to the following ...

Role	Name
SCTS Honorary Treasurer	Mark Jones
SCTS Executive Elected Trustee	Attilio Lotto
SCTS Executive Elected Trustee	Karen Redmond
SCTS Cardiac Surgery Co-Chair	Manoj Kuduvalli
SCTS Thoracic Surgery Co-Chair	Karen Redmond
SCTS Trust Appointed Doctor Lead (Thoracic)	Mohammad Hawari
SCTS Congenital Cardiac Surgery Education Lead	Shafi Mussa
SCTS NAHP Meetings Team Lead	Nisha Bhudia
SCTS NAHP Associate Meetings Team Lead	Rosalie Magboo
SCTS NAHP Physician Associate Lead	Ramanjit Kaur

ACTACC & SCTS JOINT STUDY DAY

Royal Society of
Medicine, London

MONDAY 6TH
NOVEMBER
2023



BRAND
NEW
PROGRAMME!

We are excited to be coming together in this collaborative study day, to pool our combined knowledge and experience and to use this opportunity to explore practice and behaviours that can improve patient care in Thoracic and Cardiac surgery. We look forward to welcoming you.

Expert speakers!

Exhibition!

*Abstract and Poster
Competition!*

Two Parallel Streams:

Thoracic Symposium; A full day dedicated to Thoracic Topics!

Cardiac Symposium; Advancing Cardiac Surgery and Anaesthesia

ACTACCMEETINGS.CO.UK



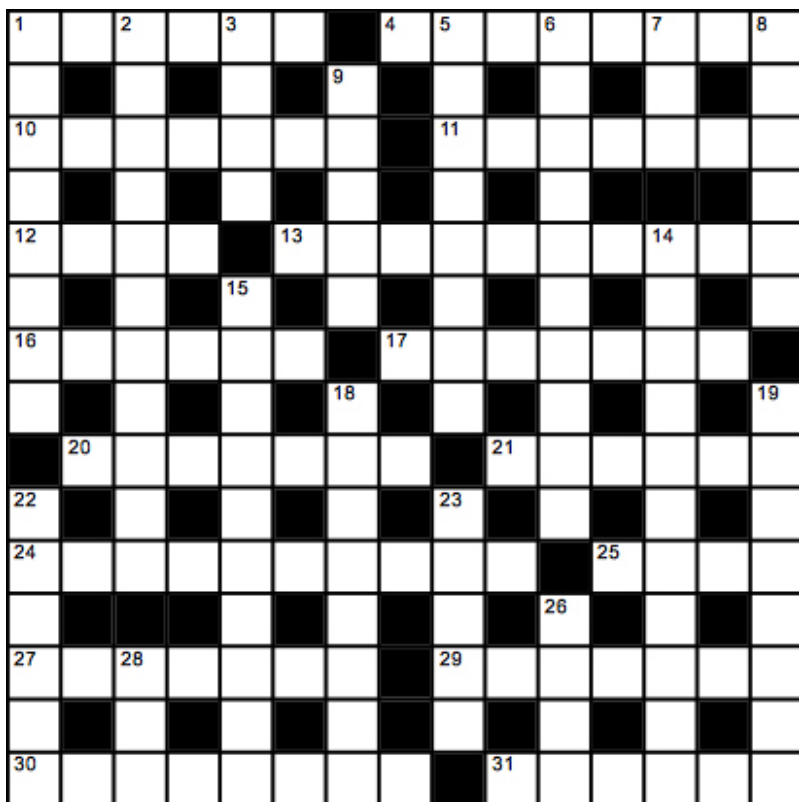
0114 2995922

katestephenson@eventmanagementdirect.co.uk

Crossword

Set by Samer Nashef

Special instruction: Poisons are not defined



Across

- 1/4 Brood on Mexican resettlement (6, 8)
- 10 Member touches partner without breaking the law (7)
- 11 It's a mark of reckless division (7)
- 12 Its eye is central yet its motion is nonsense (4)
- 13 Model gets mixed up with Rob in bachelor party (10)
- 16 Artist in therapy (6)
- 17 As fully presented (7)
- 20 Some hair visible beyond end of skirt (7)
- 21 Cocktail's magic power to convey sex appeal (6)
- 24 Bimbo stripped Felicity topless, dancing in folly (10)
- 25 German Empire that man abandoned (4)
- 27 Building in decay (7)
- 29 Greek character opposed to Italian wine (7)
- 30 Flowers a prominent feature in Cyrano de Bergerac, Oscar Wilde and W H Auden, perhaps (8)
- 31 Australian resident's possibly half expressed hesitation (6)

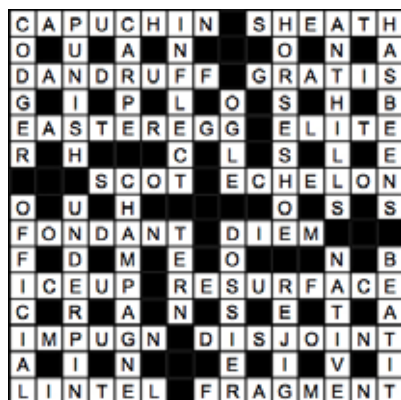
Down

- 1 Abstaining from sex might get you a bicycle (8)
- 2 Starts to go up like a rocket in sound effect to play, croon or chant but not to sing (7, 4)
- 3 Look at objectifying lassie on vacation (4)
- 5 Seaward horse (8)
- 6 Excessive to be out of the trenches (4, 3, 3)
- 7 Some undrinkable liquid (3)
- 8 Waugh at last gets promoted fairly (6)
- 9 Some totally crazy gear for cyclists (5)
- 14 People of the bible insist I help out (11)
- 15 Having fun from endless tongue action (10)
- 18 Rower finally happy in a room by the kitchen (8)
- 19 Sport not interesting until Manchester leads (8)
- 22 Vitamin B, A and C twice in mixture (6)
- 23 Keep cattle (5)
- 26 Lady's first vow to swim here (4)
- 28 American bum in Massachusetts (3)

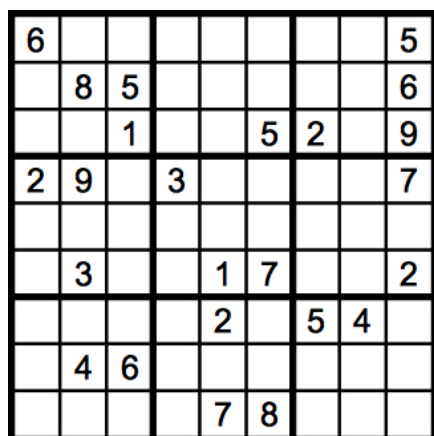
Please email solutions by 29/09/23 to:
emma@scts.org or send to
Emma Piotrowski, SCTS, 38-43,
Lincoln's Inn Fields, London WC2A 3PE

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

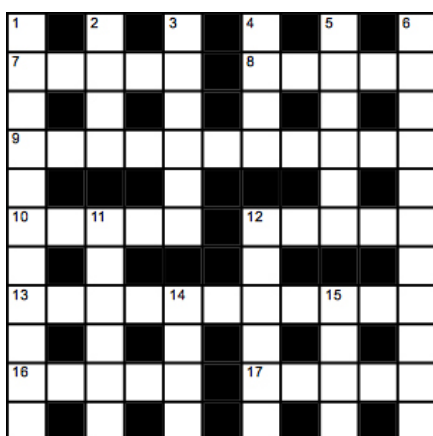
Congratulations to Maggie Huang for winning the January 2023 Bulletin crossword competition (right) who chose a handmade ceramic bottle of olive oil as her prize.



Sudoku



Quick Crossword



Across

- 7 Player (5)
- 8 Arc (5)
- 9 31 December (3, 5, 3)
- 10 Sweet (5)
- 12 Curse (5)
- 13 One claiming to see the future (11)
- 16 Child carer (5)
- 17 Muse (5)

Down

- 1 Splendid (11)
- 2 Casserole (4)
- 3 Turn to ice (6)
- 4 Evidence of injury (4)
- 5 Light wind (6)
- 6 Party (11)
- 11 Tubes (6)
- 12 Spade (6)
- 14 Beams (4)
- 15 Partly open (4)

CALL FOR ABSTRACTS



SCTS ANNUAL MEETING 2024

Sunday 17th – Tuesday 19th March

**Abstract Submission Opens
1st September 2023**

**Registration Opens
1st December 2023**

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