



Issue 12
August 2022

the *bulletin*

*Society for Cardiothoracic Surgery
in Great Britain and Ireland*



Ms Malaysia McClure, 2022
Metamorphosis [acrylic]



**EPIC™ MITRAL STENTED TISSUE VALVE
WITH LINX™ AC TECHNOLOGY**

EPIC. BY DESIGN.

ENGINEERED TO DELIVER EXCELLENT DURABILITY,
ALONG WITH SMOOTH IMPLANTABILITY
AND OUTSTANDING PERFORMANCE.

**THE INNOVATIVE FLEXFIT™ SYSTEM FOR A
CUSTOMIZABLE IMPLANTATION.**

SYMMETRICAL TRIPLE COMPOSITE DESIGN

Eliminates septal
muscle bar leaflet and
need for orientation

FLEXIBLE POLYMER STENT

Facilitates placing knots
and maneuverability
in implantation

SOFT SEWING CUFF

Provides limited
suture drag and
parachuting forces

UNIQUE PERICARDIAL SHIELD

Provides a tissue-to-tissue
interface to help prevent
the risk of abrasion

RINSE TIME OF 2 X 10 SECONDS

Allows for abbreviated procedure
prep time

RATCHETING HOLDER

Mitigates potential for
suture looping



Epic is a trademark of the Abbott Group of companies.


CAUTION: This product is intended for use by or under the direction of a physician. Prior to use, reference the Instructions for use, inside the product carton (when available) or at eifu.abbottvascular.com or at medical.abbott/manuals for more detailed information on Indications, Contraindications, Warnings, Precautions and Adverse Events. Information contained herein is for distribution for Nordics ONLY. Photo(s) on file at Abbott.

Abbott International BVBA

Park Lane, Culliganlaan 2B, 1831 Diegem, Belgium, Tel: 32.2.714.14.11

©2019 Abbott. All Rights Reserved. 9-NO-3-10223-01 09-2019

In this issue ...

 **the** *bulletin*
Society for Cardiothoracic Surgery
in Great Britain and Ireland

- 5 From the Editor **Indu Deglurkar**
- 6 From the President **Simon Kendall**
- 8 From the Honorary Secretary **Rana Sayeed**
- 10 Annual meeting 2022
Daisy Sandeman, Cha Rajakaruna
- 12 SCTS Executive Committee
- 14 The Healthcare Leadership Academy:
Research Masterclass **Professor Mahmood Loubani, Arian Arjomandi Rad, Dr Johann Malawana, Dr George Miller**
- 16 Cardiothoracic Interdisciplinary Research Network (CIRN) **Luke J. Rogers, Ricky Vaja, Ann Cheng, Brianda Ripoll, Rosalie Magboo**
- 17 Launch of research mentorship in Cardiac Surgery
Marius Roman, Enoch Akowuah, Massimo Caputo, Gianluca Lucchese
- 18 SCTS Education Report
Debbie Harrington, Carol Tan
- 20 SCTS Education Tutors' Report
Elizabeth Belcher, George Asimakopoulos
- 22 Using Coronavirus (COVID-19) as a Springboard for Developing Surgical Education
Ahmed M A Shafi, Daniel Sitaranjan, Muhammad Umar Rafiq,
- 23 Nursing and Allied Health Professional update
Dr Bhuvanewari Krishnamoorthy,
- 30 Harefield Hospital Pharmacy Team: Best Pharmacist Team of the Year
Shahzad Raja
- 31 Best Cardiac Team of the Year
Rosalie Magboo
- 32 SCTS NAHP Team Award – Best Thoracic Team
Doug West
- 34 Clinical Perfusion Team – University Hospitals of Leicester
Lisa Carson
- 36 Cardiac committee report
Enoch Akowuah
- 37 Thoracic committee report
Aman Coonar
- 38 Communications report
Sri Rathinam
- 39 Training report
Duncan Steele, Abdul Badran
- 40 JCIE Intercollegiate Specialty Board Updates
Sri Rathinam
- 42 SCTS Transplant Education Lead Report
Espeed Khoshbin
- 43 Congenital Cardiac Surgery Education 2018-2022
Attilio Lotto
- 44 To heal a broken heart, Team: Towards better professional collaboration
Hisham Sherif
- 46 The Pat Magee INSINC Masterclass 2022 – Educating surgeons of the future
Josh Brown
- 48 Candid view **Asif Hasan**
- 50 SCTS Fourth National Research Meeting 2021
Akshay Patel
- 52 Gruber's "Pneumonectomy Tunic"
Keyvan Moghissi
- 53 Poem titled "Cardiac Surgery"
Najeeba Lallmahomed
- 54 AD 2032: The Landscape for Aortic Dissection in 10 Years Time
Graham Cooper, Catherine Fowler
- 56 High demand for Aortic Dissection: The Patient Guide at the SCTS annual meeting
Christina Bannister
- 58 Challenges in Cardiac Surgery
India Premjithlal Bhaskaran
- 59 Kids allowed? Kids allowed! The next generation at the SCTS annual meeting
Annemarie Brunswicker
- 60 Scalpel Please..!
Essam Eldien Abuobaida Banaga
- 62 BISMICS Minimal Access Mitral Course
John Massey, Ali Mohammadi
- 63 Complex Mitral Valve Repair Training at the Bristol Heart Institute: An International Fellow's Perspective
Ivan Zelentsov
- 64 The Impact of the NHSEI Covid-19 Harm Review on Patients currently on the Cardiac Surgical Waiting List: University Hospital Southampton's Experience
Christina Bannister
- 66 Letters to the Editor
- 68 Advanced Cardiac Surgery post-CCT Fellowship at Waikato Hospital, New Zealand
Alessandro Viviano
- 69 SCTS Ionescu Fellowship for Foundation Doctors – The Papworth Experience
Dr Jordan Green
- 70 2020 SCTS-Ionescu NTN Trainee Travelling Fellowship
Jason Ali
- 71 Ionescu Trust Appointed Doctor Small Travel Fellowship 2021 Award
Anchal Jain
- 71 Ionescu Student Fellowship: Two-week intense immersion in all things cardiothoracic surgery
Bertie Harrington
- 72 SCTS Travel Fellowship 2021 Dublin, Republic of Ireland
Rachel Chubsey
- 74 SCTS-Ethicon Surgical Trainee Fellowship - Lung transplant and thoracic surgery at Toronto General Hospital
James Barr
- 76 New consultant appointments
- 77 Demitted roles/New roles
- 78 Crossword, Sudoku, Quick Crossword
Samer Nashef

Society for Cardiothoracic Surgery in Great Britain and Ireland

SCTS, 5th Floor, Royal College of Surgeons, 35-43 Lincoln's Inn Fields, London WC2A 3PE
T: 020 7869 6893
E: sctadmin@scts.org
W: www.scts.org

Open Box Media & Communications

- Director Stuart.Walters@ob-mc.co.uk
- Director Sam.Skiller@ob-mc.co.uk
- Studio Manager Mark.Lamsdale@ob-mc.co.uk
- Production Matt.Hood@ob-mc.co.uk
- Advertising Sales Mandy@ob-mc.co.uk

the bulletin is published on behalf of the SCTS by Open Box Media & Communications, Premier House, 13 St Pauls Square, Birmingham B5 1RB. T: 0121 200 7820.

For sales or design services, please discuss your requirements with a member of our team.



We are committed to sustainable forest management and this publication is printed by Buxton Press who are certified to ISO14001:2015 Standards (Environmental Management System). Buxton prints only with 100% vegetable based inks and uses alcohol free printing solutions, eliminating volatile organic compounds as well as ozone damaging emissions.



Open Box Media & Communications are proud to be corporate sponsors of Heart Research UK (Midlands)





FI 19.1.010.020/A-E

IMAGE1 S™ Rubina™ – mORe to discover

- 4K image resolution
- OPAL1® NIR/ICG technology with new display modes
- Laser-free LED light source for white light and excitation of NIR/ICG
- 4K-3D videoendoscope with automatic horizon control

STORZ
KARL STORZ – ENDOSKOPE
THE DIAMOND STANDARD

KARL STORZ SE & Co. KG, Dr.-Karl-Storz-Straße 34, 78532 Tuttlingen/Germany
KARL STORZ Endoscopy (UK) Limited, 415 Perth Avenue, Slough, Berkshire SL1 4TQ/United Kingdom
www.karlstorz.com

From the Editor

Indu Deglurkar, Publishing Secretary, SCTS



“There are no butterflies without change.”

As I settle down to write the editorial, a number of thoughts race through my mind. The “highs” and “lows” of the last six months, the wide ranging articles that have been submitted that reflect the current situation, the design of the cover page of *The Bulletin*, the change in the leadership and the abyss that will be created with Isabelle’s departure.

I reflect on the triumph of the meetings team who managed to convene an excellent Annual Meeting in Belfast after repeated cancellations and postponement. A trip to the Giant’s Causeway (pictured right) followed by an attendance of over a thousand members at the meeting itself, the personal interactions, facilitated by the hard work of Maninder Kalkat and his team was welcomed by one and all. Hearty congratulations on a huge achievement!

Whilst we are faced with the challenges of COVID recovery, our President Simon Kendall’s article and its sobering information has been the driver for this edition’s cover page. BHU has been reported widely in all sectors and the survey conducted by the SCTS recently shows 80% of the 280 respondents have either been subjected to or have witnessed bullying. The survey conducted by the ED&I team last year showed that 50% of the respondents had experienced bullying in our specialty. Both these surveys are landmarks in the UK as we acknowledge and discuss (like never before) openly a deeply entrenched problem in the

NHS. The Transtheoretical Model (TTM) introduced by researchers James Prochaska and Carlo DiClemente describe five stages of change for a variety of problem behaviours. The five stages of change are **precontemplation, contemplation, preparation, action, and maintenance**. I believe that we have progressed to stage two of change; from the Precontemplation stage at which there is no intention to change behaviour in the foreseeable future.

I was enamoured by the artist Ms Malaysia McClure’s painting (Fine Art America) on metamorphosis of a caterpillar into a butterfly and extremely grateful for permission to reproduce it on our cover page. This dramatic change is what is essential in our healthcare. NHS-based research has identified workload pressure, staff shortages, stress and the hierarchical nature of the profession as

management and bullying. We have to display a high degree of emotional intelligence, consistent and equitable behaviour, provide timely and specific professional feedback and above all, reflect on the “intent” and “impact” of our behaviour. It is equally important to understand the impact and influence of the “institutional” climate in our behaviour. A structured programme to support lasting change usually involves a substantial commitment of time, effort and emotion.

We have imminent changes in the Constitution of the SCTS as outlined in our Honorary Secretary, Rana Sayeed’s, article and we have attempted to showcase all the excellent work done by the NAHPs in developing the leadership team, educational portfolio’s and NAHP awards under the able leadership of Bhuvana Krishnamoorthy. The refreshing poem on cardiac surgery, endless enthusiasm of medical students to pursue training in our specialty and the ability of female surgeons

to attend conferences with appropriate facilities is a sure sign of changing times.

Finally, Simon Kendall, who has led the SCTS in truly turbulent times is passing on the baton to Narain Moorjani in September. It has been an absolute pleasure and privilege to work closely with Simon for 5 years. Isabelle Ferner (pictured left) who has worked relentlessly for the SCTS for over 2 decades is leaving the SCTS. Like countless other members, I

am left bereft as I realise how much I will miss the solid relationship and unstinting support that I have received during my tenure. ■



The Meetings Team unwinding at the Giant Causeway



Emma Piotrowski, Tilly Mitchell and Isabelle Ferner

contributory factors which increase the likelihood of ‘silent by standing’ which allows bullying behaviour to continue unchallenged. A fine line exists between performance

From the President

Simon Kendall, SCTS President, Medical Director NHSEI, North East, Cumbria and Yorkshire



The joy and the pride of being part of our specialty was clear to see and feel in the May sunshine of Belfast – our first AGM in three years. The sessions were very well attended and the quality of the content and presentations were top notch – medical students, allied health professionals, surgeons in training all delivering fine talks and answering probing questions. When I was meeting secretary, we struggled to sell all the tickets for the annual dinner. Now there is a significant waiting list with an extra 80 tickets on offer for a total of 280 – an opportunity to announce and present prizes and awards to our outstanding colleagues, as well as to enjoy a social occasion without restrictions after the major challenges of the pandemic.

It cannot be overstated what the meetings team have endured and achieved in the last two years.

- They had to cancel the 2020 AGM in Newport at short notice
- They tried to reschedule the AGM for summer that year with all the uncertainty
- They planned and prepared for an AGM in March 2021
- They had to cancel those plans
- They prepared from scratch a virtual AGM for May 2021 – which many cited as the best example of a virtual conference
- They planned a hybrid meeting for March 2022
- They had to postpone until May 2022
- And they have delivered probably the best AGM we've ever had

Maninder Kalkat, Cha Rajakaruna, Sunil Bhudia, Daisy Sandeman, Isabelle Ferner and Tilly Mitchell. What a team! What endurance and resilience. What extraordinary leadership. Thank you – you are a great example to us all.

We now turn our attention to the recovery of our specialty after Covid. Many patients through the pandemic have not presented

nor been able to access care across all our subspecialties – congenital, thoracic, transplant and adult cardiac. And to repeat the message in my previous article, we need to embrace innovation with virtual consultations, ring fenced beds, pre-admission clinics, day of surgery admission, enhanced recovery to improve outcomes, improve the patient experience and use our resources more effectively – and on top of all of that the significant bonus for us all to start the lists on time and finish on time.

What is it about the world we live in at the moment? Why, when there are so many challenges and uncertainties, do humans choose to be unpleasant to each other? We are hearing and reading in the media about bullying and harassment and undermining (BHU) in many walks of life – even the speaker of the House of Commons as well as several professions. The NHS and other health services also suffer with this culture and recent published surveys in cardiology and vascular surgery reinforce the extent that it intrudes into our working lives. Cardiothoracic Surgery is no exception, and prompted by events in our specialty (some of them published in the media), SCTS has performed its own anonymous survey of members: 280 responses from over a 1000 members of whom 80% have been subjected to, or witnessed BHU – most is experienced

in 'public' areas such as theatre, ITU, and the ward, some of which has been physical or sexual. As with all these surveys it is the suffering described in the text responses that is so sobering. We are now preparing to publish in a cardiothoracic journal, with our proposals of positive actions.

We are blessed with the most dedicated, hardworking, intelligent colleagues who should all be able to come to work feeling supported and in a safe environment – if we can't change and provide such safety and support they will leave the specialty and we will struggle to recruit and retain. The professional interactions of the past that we took for granted are no longer acceptable – sarcasm, public humiliation, public challenge, personal attacks may have been the norm but our diverse teams will not understand such interactions and will feel undermined and less confident. BHU hurts the recipient and also negatively impacts others who witness such behaviour. If that's not bad enough we also now understand that it impacts on patient safety and outcomes.

I reflect on my own educational and surgical upbringing and I am embarrassed, with the benefit of hindsight, about what I imitated and how I have behaved. If only I could start all over again ...

But that's the main point – BHU is a learnt behaviour and we can change. Our

“We are blessed with the most dedicated, hardworking, intelligent colleagues who should all be able to come to work feeling supported and in a safe environment – if we can't change and provide such safety and support they will leave the specialty and we will struggle to recruit and retain.”

SCTS survey kick starts the conversation about what good looks like and how we can stand up and support each other to be civil and respectful.

A special mention for our two outgoing trainee representatives Abdul Badran and Duncan Steele. All the past trainee representatives have been outstanding, but Abdul and Duncan have been leaders through the most challenging of times. They have never mentioned their own challenges through Covid and the impact on their own training, but they have been selflessly representing the significant concerns of their colleagues, often shouldering confidences and giving support and mentorship wherever they can. They have finished their term with the writing and delivery of the BHU survey, which will significantly improve the professional lives of their colleagues and subsequent generations – a major contribution and impact on our specialty. Thank you Abdul and Duncan.

“A final plea to all colleagues to please give every training opportunity you possibly can to give our future surgeons the experience and confidence they need for CCT / CESR and beyond, having suffered a major loss of opportunities through Covid.”

On that note, a final plea to all colleagues to please give every training opportunity you possibly can to give our future surgeons the experience and confidence they need for CCT / CESR and beyond, having suffered a major loss of opportunities through Covid.

On a personal level, I made the decision to leave clinical practice at the end of January to start my role with NHSEL. The trustees have agreed that Narain Moorjani

should now become President, having been elected president-elect in January, and I will ceremonially hand over the badge of office at the Board of Representatives meeting on September 30th. Narain has been a phenomenal Education Secretary and Honorary Secretary – the most organised and most professional colleague I’ve had the pleasure to work with and I am excited for SCTS what he will deliver as President. ■



Rotaflow II

Proven strength. Reinvented.

Rotaflow is by your side

The Rotaflow II System is a reliable, high quality extracorporeal life support (ECLS) system that gives you the flexibility you need to provide quality patient care.

Scan the QR-Code to learn more about Rotaflow II



GETINGE 

From the Honorary Secretary



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

I am honoured to have been appointed as Honorary Secretary and have the opportunity to help the SCTS develop its current projects and proposals. One of its current aims is to improve professional representation to reflect the increasingly multi-professional delivery of modern cardiothoracic care.

I look forward to seeing colleagues at the Board of Representatives (BORs) meeting on 30 September. The BORs has been renewed in its constitution and format with wider representation from each unit. There will be invitations to representatives from each unit with the option to attend in person or join virtually.

Increasing and improving professional representation

The SCTS is the professional society for all healthcare professionals involved and interested in cardiothoracic surgery. From its founding as a society of thoracic surgeons with about 24 consultant surgeon members in 1933–4, the membership has grown to over 1500, including consultants, NTNs, and Trust-appointed doctors (TADs), nurses and allied health professionals (NAHPs), and medical students. As a charity and limited company, the SCTS is governed by its Articles of Association (the ‘constitution’) that defines its objectives and powers and regulates its administration. The Trustees of the SCTS are responsible for its management and administration and are the voting members of the Executive. Currently, there are six elected trustees, all consultant members, in addition to the President, President-Elect, and the three appointed officeholders – Honorary Secretary, Treasurer, and Meetings Secretary. The SCTS constitution was last revised in 2012 when the name was changed from the Society of Cardiothoracic Surgeons to the Society for Cardiothoracic Surgery, but the SCTS has continued to develop, and the constitution has become out-of-date.

Evolution of the SCTS over the last decade

The SCTS and the practice and delivery of cardiothoracic care have changed over the last ten years. The number of sub-committees within the SCTS has grown to represent different areas and professional groups within the Society associated with the increasing involvement of the membership. There are new patient pathways and expanding roles to deliver care. Access to SCTS educational courses and other opportunities has become more equitable. Electronic voting and the rise of social media have altered how the SCTS communicates with its members and the public. Finally, the SCTS has faced significant challenges that have tested the existing constitution and identified areas for improvement.

Revision proposals

The President presented proposals for revision of the constitution at the Annual Business Meeting in March. Overall, the constitution needs updating to reflect the latest regulations and guidance from the Charity Commission. However, the most significant proposals are an increase in the number of trustees and a change in the membership categories able to vote.

Currently, only consultants and NTNs are eligible to vote, and only consultants can serve as trustees. We propose to create three additional trustees to represent, and be elected by the membership categories of i) NTNs, ii) TADs, and iii) NAHPs. With the growing importance of effective communication to allow the SCTS to fulfil its aims, the Communications Secretary should also become an appointed trustee. These proposals would 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.

Finally, we propose to review which members are eligible to vote for the President-Elect – currently elected by consultant and NTN members – to reflect the changes to the elected Trustees described

above. However, any changes to the election of the President will require further consultation before ratification next year.

There are other proposals already adopted or under consideration that do not require revision of the constitution:

- Appointment and election of trustees. The eligibility criteria for trustees, such as good professional standing and conflicts of interest, have been formalised and the interview process for appointed trustees has been made more transparent, structured, and robust.
- Social media policy. We shall agree on a social media policy to cover i) the SCTS’s use of social media to promote its activities and ii) members’ responsibilities on social media to avoid any comment that might lead to reputational harm to SCTS.
- Secondary name. We propose the *Society for Chest, Heart & Lung Surgery* as a secondary name or ‘tagline’ for the SCTS to help explain its role in simpler terms.

Members’ support for revision of the constitution

These proposals were discussed at the Annual Business Meeting, and the attendees were polled. A large majority were in favour of revising the constitution (89%) and further consultation on representation and voting rights (88%).

Next steps in the revision of the constitution

The proposed changes have been discussed amongst the senior officeholders guided by CMS Legal, a firm of charity lawyers. After discussion and agreement at a meeting of the trustees, a final draft of the revised Articles of Association has been presented at the Executive meeting in July for ratification by the members at the Annual General Meeting in March.

The redrafting of the constitution has needed much thought and consideration. I am grateful for the advice and direction of Simon Kendall, Narain Moorjani, the other appointed and elected trustees, and the expert support from CMS Legal. ■

INCISION

Medical Indemnity Insurance



Regulated and secure contract of insurance



Medical indemnity cover for work performed outside of the U.K., excluding USA & Canada*



Supported by:

- A rated (A.M. Best) and A- (S&P) Medical Malpractice insurance companies
- Lloyd's of London syndicates rated A+ (S&P) and A (AM Best)



We offer some of the highest aggregate limits in the market – up to £40 million per policy year



Broader time frame and greater flexibility when notifying a claim or circumstances



Guaranteed full 21 years run-off cover – for no extra charge from day one



Unlimited in-house 24/7 medico-legal advice from unique medically and legally qualified staff at no additional cost



Quick and easy to use online application form that gives surgeons an instant quote and purchase option



Specialist and exclusive bespoke scheme offering highly competitive rates

Contact us:

0333 444 1515

info@incisionindemnity.com

www.incisionindemnity.com

*The Incision policy is designed for UK domiciled consultants with majority UK practice. All practice performed outside of the UK needs to be declared to us.



Annual Meeting Report – Belfast, May 2022

Daisy Sandeman, Clinical Nurse Practitioner in Cardiac Surgery, Royal Infirmary of Edinburgh
Cha Rajakaruna, Consultant Cardiac Surgeon, Bristol Royal Infirmary



The annual meeting of the Society for Cardiothoracic Surgery in Great Britain and Ireland has, for many years, been a platform to share and gain knowledge from different experiences in centres within the United Kingdom and around the world and offer unique networking opportunities. In January 2022 the meetings team was once again forced to postpone the March 2022



meeting due to a resurgence of Covid in the community. This team, which had been in place since 2020, were now expert at

handling the disappointment and thinking beyond plan A and B. Following instincts and relevant advice, the committee decided to set the stage using a hybrid platform, scheduled for 9th-10th May. With a clear message from

the outset that in-person attendance was preferred, we even promised good weather and refunds for those who would make the early commitment! This novel arrangement required the team to count upon shared learning and ended up being a positive and unique experience for all involved. It felt like we were back with a bang!

The conference brought together national and international speakers, healthcare industry representatives displaying state of the art evolutionary technology and the main ingredient as always ... enthusiastic and keen delegates. This year, they travelled in large numbers ready to reconnect along with several hundred creating an impactful virtual presence. The usual 3-day event was extended by one day to include a pre meeting social day. The proceedings kick-started with a 5K run supporting the Heart Valve Voice charity, raising awareness of cardiovascular diseases. The society treated their members and guests to a leisurely trip to the Giant's Causeway, stopping en route to enjoy beverages in some of the oldest pubs on the emerald island.

The University day scheduled for the 9th of May, as usual, was a relentless feast

of educational themed sessions and industry sponsored lunch-box sessions. There were three exciting parallel streams in cardiac and thoracic surgery. Contributions included the British Heart Valve Society and UK Aortic Society. Focused sessions on heart transplantation and Thymic tumours were special highlights. The NAHP stream included the acclaimed WETLAB day that gives delegates a broad spectrum of interactive cardiothoracic experiences and a taster session for the Pat Magee Medical students. Additionally this year, by popular demand, an all-day research stream was organised that was well-received by present and virtual delegates alike. A successful university was concluded with the welcome reception hosted by the president elect where special thanks was given to our industry partners who stood shoulder to shoulder with the SCTS and supported the exhibition section of the meeting. Some of the members and guests followed on to a friendly but competitive Pub Quiz.

The two-day main meeting followed which included a host of plenary sessions on topical matters relevant to cardiothoracic surgery multidisciplinary teams (MDT), educational symposia, keynote lectures by influential speakers, delivery of the Hunterian lecture and moderated abstract presentations. Alongside was a display of clinical posters for delegates to visit during the refreshment breaks. Day one ended with the hugely popular annual gala dinner where delegates attended in their smart and beautiful glad rags ready to party with their peers. SCTS president Simon Kendall also presented the awards to the prizewinners from the previous year's conferences.

Day two, the final day of the proceedings, continued its flair and interest with many more opportunities to debate, discuss, learn and share experiences with colleagues working within different set ups. Over 1100 participants exchanged details to continue conversations that began at the conference, and that is always the main agenda of the event. None of the above is possible without the delegates attending with the energy and view to explore and the industry engaging with the needs of the Society and preparing the members for healthcare evolution. The meeting committee thanks everyone who contributed to bringing this annual assembly to fruition. The team have started preparation for the next meeting and we are looking forward to seeing everyone from the 19th – 21st March 2023 in person at ICC Birmingham. ■



SCTS Executive Committee

President: Simon Kendall

President Elect: Narain Moorjani

Honorary Secretary: Rana Sayeed

Honorary Treasurer: Amal Bose

Education Secretaries: Carol Tan, Deborah Harrington

Nursing & AHP Rep: Bhuvana Krishnamoorthy

Perfusion Reps: Chris Efthymiou

Elected Trustees: Enoch Akowuah, Aman Coonar, Betsy Evans, Andrew Parry, Manoj Purohit, Vipin Zamvar

Meeting Secretary: Cha Rajakaruna

Lay Representative: Sarah Murray

Trainee Reps.: Bassem Gadallah, Walid Mohamed

Communication Secretary: Sri Rathinam

Co-opted Members

Audit Co-Chair: Doug West

Congenital Co-Chair: Andrew Parry

Research Co-Chairs: Eric Lim
Mahmoud Loubani

Innovation Co-Chair: Hunaid Vohra

Transplantation Co-Chair: Steven Tsui

Tutors: George Asimakopoulos, Elizabeth Belcher

Cardiothoracic Dean: Neil Roberts

SAC Chair: Marjan Jahangiri

Exam Board Chair: Sri Rathinam

SCTS Administration

Isabelle Ferner
Tilly Mitchell
Emma Piotrowski
Taet Chesterton

Professional Standards, Communications & Meetings	Adult Cardiac Surgery	Thoracic Surgery	Congenital Cardiac Surgery	Transplantation	Audit	Education
<p>Professional Standards Sarah Murray Andrew Parry Betsy Evans Bhuvanewari Krishnamoorthy Doug West</p> <p>Communications Sri Rathinam SCTS Website: Clinton Lloyd Bulletin: Indu Deglurkar NAHP Representative: Jeni Palima</p> <p>Meetings Team Meeting Secretary: Cha Rajakaruna Deputy Secretary: Sunil Bhudia Associate Secretary: Carol Tan NAHP Rep.: Daisy Sandeman Conf. Organisers: Isabelle Ferner Tilly Mitchell</p>	<p>Co-Chair: Enoch Akowuah</p> <p>Executive Co-Chair: Simon Kendall</p> <p>Appointed Members: Hari Doshi Georgios Krasopoulos Giovanni Mariscalco</p> <p>Audit Lead: Uday Trivedi</p> <p>Education Lead: Deborah Harrington George Asimakopoulos</p> <p>NAHP Representative: Lisa Carson Kathryn Hewitt</p> <p>Trainee Representative: TBC</p> <p>Co-opted Members: Andrew Goodwin (NICOR) Maonj Kuduvali (UK Aortic Surgery Group) Peter Bradley (NHS Commissioning)</p>	<p>Co-Chair: Aman Coonar</p> <p>Executive Co-Chair: Rana Sayeed</p> <p>Appointed Members: Babu Naidu Steve Woolley Joel Dunning David Healy Leanne Ashrafian Mark Jones Syed Qadri Malgorzata Kornazewska Nizar Asadi Mathew Thomas Doug West Sri Rathinam</p> <p>Audit Lead: Kandadai Rammohan</p> <p>Education Lead: Carol Tan NAHP Representative: Xiaohui Liu Trainee Representative: Oliver Harrison Jennifer Whiteley</p> <p>Co-opted Members: Emma O'Dowd (BTS) Ian Hunt (Commissioning) Richard Steyn (Trauma) Mark Steven (ACTA)</p>	<p>Co-Chair: Andrew Parry</p> <p>Executive Co-Chair: Narain Moorjani</p> <p>Unit Reps.: Mohammed Nasser Osama Jaber Andreas Hoschitzky Phil Botha Tim Jones Natalasha Khan Conal Austin Mark Redmond Branko Mimic Martin Kostolny Ramana Dhannapuneni Mark Danton Ed Peng Massimo Caputo Shafi Mussa</p> <p>Audit Lead: Carin Van Doorn Serban Stoica (Deputy)</p> <p>Education Lead: Attilio Loto</p> <p>NAHP Representative: TBC</p> <p>Trainee Representative: Joseph George</p>	<p>Co-Chair: Steven Tsui</p> <p>Executive Co-Chair: Simon Kendall</p> <p>Appointed Members.: Marius Berman Stephen Clark Phil Curry John Dunning Aisling Kinsella Jorge Mascaro Rajamiyer Venkateswaran</p> <p>Audit Lead: Jorge Mascaro Marius Berman</p> <p>Website Lead: Aisling Kinsella</p> <p>Education Lead: Espeed Khoshbin</p> <p>NAHP Representative: Emma Matthews TBC</p> <p>Trainee Representative: Bassem Gadallah Walid Mohamed</p>	<p>Co-Chair: Doug West Executive Co-Chair: Simon Kendall</p> <p>Adult Cardiac Surgery Lead: Uday Trivedi Deputy Adult Cardiac Surgery Lead: Umberto Benedetto Regional Deputy Adult Cardiac Surgery Leads: Indu Deglurkar (Wales) Zahid Mahmood (Scotland) Alastair Graham (Northern Ireland)</p> <p>Thoracic Surgery Lead: Kandadai Rammohan</p> <p>Congenital Cardiac Surgery Lead: Carin Van Doorn Deputy Congenital Cardiac Surgery Lead: Serban Stoica</p> <p>NAHP Representative: Hemangi Chavan Nisha Bhudia Zainab Khanbhai Rosalie Magboo</p> <p>Co-opted Members: Andrew Goodwin (NICOR)</p>	<p>Co-Chairs: Carol Tan Deborah Harrington Executive Co-Chair: Narain Moorjani</p> <p>Surgical Tutors: George Asimakopoulos Elizabeth Belcher</p> <p>Congenital Cardiac Surgery Lead: Attilio Loto Transplant Surgery Lead: Espeed Khoshbin NAHP Representative: Bhuvana Krishnamoorthy Trainee Representatives: Bassem Gadallah Walid Mohamed Consultant Lead: Prakash Punjabi Shahzad Raja Trust Appointed Doctors Leads: Zahid Mahmood (Cardiac) Kandadai Rammohan (Thoracic) Student Lead: Farah Bhatti Karen Booth Accreditation Lead: Shafi Mussa Communication Lead: Vivek Sivastava</p>

Research	Innovation	Equality, Diversity & Inclusion	Nursing & Allied Health Professionals (NAHP)	Women in Cardiothoracic Surgery (WICTS)	Trainees	Patient Safety Working Group
<p>Co-Chairs: Eric Lim Mahmoud Loubani Executive Co-Chair: Narain Moorjani</p> <p>Adult Cardiac Surgery: Enoch Akowuah Gianluca Lucchese</p> <p>Thoracic Surgery: Babu Naidu</p> <p>Congenital Cardiac Surgery: Massimo Caputo Nigel Drury</p> <p>NAHP Representative: Rosalie Magboo Zainab Khanbhai Julie Sanders Hemangi Chavan Nisha Bhudia</p> <p>Trainee Representative: Azar Hussain</p> <p>Medical Student Lead: Rishab Makam</p> <p>Co-opted: Andrew Goodwin (NICOR) Luke Rogers (ASSL) Ricky Vaja (ASSL) Serban Stoica (Congenital Audit) Akshay Patel (ASSL)</p>	<p>Co-Chair: Hunaid Vohra</p> <p>Executive Co-Chair: Narain Moorjani</p> <p>Appointed Members: Ishliq Ahmed Alex Cale Massimo Caputo Roberto Casula Ranjit Deshpande Joel Dunning Hazem Fallouh Rafael Guerrero Shyam Kolvekar Kelvin Lau Narain Moorjani Nicolas Nikolaidis Karen Redmond Stephan Schueler</p> <p>Trainee Representative: Joshil Lodhia Bassem Gadallah Abdul Walid Mohamed</p> <p>NAHP Representative: 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 Okorochoa Hanad Ahmed Aswani Pillai Ramanjit Kaur Charlie Bailie Adam Borrer Samuel Burton Jeevan Francis Sathyan Gnanalingham Anoop Sumal</p>	<p>Chair: Bhuvanewari Krishnamoorthy</p> <p>Regional Tutors: Libby Nolan Michael Martin Namita Thomas Yi Wang Cardiac Lead: Kathryn Hewitt Thoracic Lead: Xiaohui Liu Audit Lead: Hemangi Chavan Transplantation Lead: Emma Matthews Innovation Lead: Una Ahearn Membership Lead: Jane Dickson Communication Lead: Jeni Palima Pharmacy Lead Nisha Bhudia Critical Care Lead Ana Gesicka Perfusion Lead: Lisa Carson Physiotherapist Lead: Zoe Barrett Brown Research Lead: Zainab Khanbhai Rosalie Magboo</p> <p>Surgical Care Practitioner Lead: ACTSCP President</p>	<p>Co-Chair: Karen Booth</p> <p>Executive Co-Chair: Narain Moorjani</p> <p>Academic Cardiothoracic Rep: Julie Sanders Cardiac Surgery Reps: Rashmi Yadav Debbie Harrington Trainee CT Surgery Rep: Michelle Lee Georgia Layton Thoracic Surgery Reps: Cecilia Pompili Melanie Jenkins Elizabeth Belcher Congenital Surgery Rep: Carin Van Doorn CT Transplantation Rep: Gillian Hardman Specialty Doctor Rep: Laura Viola Executive invited member: Betsy Evans Theatre Surgical Care Practitioner Rep: Esme Shone Advanced Clinical Nurse Practitioner Rep: Lorna Whitford Clinical Perfusionist Rep: Rosie Smith Medical Student Rep: Asmita Singhania</p>	<p>Trainee Rep (Senior): Bassem Gadallah</p> <p>Trainee Rep (Junior): TBC</p> <p>Appointed Members TBC</p>	<p>Co-Chair: Andrew Parry</p> <p>Executive Co-Chair: Narain Moorjani</p> <p>Appointed Members: Vanessa Rogers Ismail Vokshi Ruhina Alam Mubarak Chaudhry Jane Dickson Jody Stafford Stephen Clark Brank Mimic Sarah Murray</p>

CALL FOR ABSTRACTS

SCTS ANNUAL MEETING 2023
19TH-21ST MARCH 2023 – ICC BIRMINGHAM

ABSTRACT SUBMISSION OPENS: 1ST SEPTEMBER 2022
ABSTRACT DEADLINE: 5TH NOVEMBER 2022
REGISTRATION OPENS: 1ST DECEMBER 2022

The SCTS Annual Meeting is an educational scientific conference for the Cardiothoracic surgery community. Abstracts are welcome from Trainees, Nurse Allied Health Professionals, Doctors, Cardiothoracic Consultants and Surgeons.



SCTS
Society for Cardiothoracic Surgery
in Great Britain and Ireland

the icc
birmingham

www.scts.org

The Healthcare Leadership Academy: Research Masterclass

Professor Mahmoud Loubani (SCTS Academic and Research Subcommittee Co-chair)

Arian Arjomandi Rad (Final Year Medical Student, Imperial College London, chair of the HLA Research Masterclass)

Dr. Johann Malawana (HLA Director)

Dr. George Miller (HLA Programme director)



The Research Masterclass stems from the collaborative efforts of the Healthcare Leadership Academy (HLA) and the Society for Cardiothoracic Surgery in Great Britain and Ireland (SCTS) Academic and Research Subcommittee.

The course, which is now in its second edition, was initially led and designed in 2021 by Arian Arjomandi Rad, currently a final year medical student at Imperial College London and HLA Scholar. During its first edition, the course attracted over 150 scholars from 13 different countries. The aim of the masterclass is to guide clinicians, students, and healthcare practitioners of all levels through the pathway necessary in order to get established within medical research. Although clinical research skills remain extremely sought after, accessibility to courses and knowledge is often limited if clinicians are not following a dedicated academic pathway. Therefore, a large pool of extremely talented individuals is potentially left out from contributing to research and collaborating into fostering medical innovation. Cardiothoracic surgery has

been the protagonist of clinical innovation and throughout its history has developed a symbiotic relationship with research. The Healthcare Leadership Academy was formed in response to the demand from young clinicians and medical students to learn about leadership, similarly, the research masterclass hopes to meet the demands for research skills and knowledge. At a time when the world has witnessed unforeseen challenges, it is important that the next generation of healthcare professionals truly understand the principles of research and learn how to practically apply their skills in order to generate and answer research questions.

Therefore, thanks to the collaboration between the HLA and the SCTS Academic and Research Subcommittee, the second edition of the HLA Research Masterclass has been launched and applications can be made using the link: https://imperial.eu.qualtrics.com/jfe/form/SV_1zh6pBEg1B7mBxQ

The course will be offered to 30 talented and motivated scholars completely free of charge. The scholars will be taught through ten

different sessions the techniques and processes of conducting and publishing clinical research from experts within the field. The detailed programme is included for potential delegates to peruse. They will have the opportunity to explore all areas of research through classes, small group sessions, and networking sessions with journal editors, researchers/statisticians, and academic clinicians. Thus, scholars will learn practical research skills as well as having the opportunity to learn about future academic career pathways.

By the end of the course, scholars will be expected to have submitted at least one piece of research within their small research groups to an impactful PubMed-indexed journal and an appropriate conference/meeting, which will be guided by their direct supervisors. Tutoring and guidance will be provided along all stages of article generation by numerous supervisors to ensure that all deadlines are met, and we hope this will be the beginning of a long and fruitful research collaboration with the members of the Healthcare Leadership Academy and the SCTS Academic and Research subcommittee.

Programme:

Event/Session	Date	Objectives
Applications Open	23rd May 2022	Applications for the Healthcare Leadership Academy: Research Masterclass open through social media channels and mailing lists. https://imperial.eu.qualtrics.com/jfe/form/SV_1zh6pBEg1B7mBxQ
Applications Deadline	13th June 2022	
Interviews	17th June – 24th June 2022	15-minute interviews conducted over Zoom. Timing and availability to be booked using an eform.
Candidates informed about selection	29th June 2022	Candidates to be emailed about the outcome of their applications.

Introduction to the Course	14th July 2022	An introduction to the course will be given and the aims and objectives will be discussed. Deadlines, requirements and expectations will also be discussed and students will have the opportunity to ask any questions that they may have. Furthermore, the teaching sessions, networking opportunities, Healthcare Leadership Academy organisation, and speaker profiles will also be discussed. The students will also have an opportunity to network with one another, the publication supervisors, and course organisers through breakout rooms.
Pairing with project supervisors	20th July 2022	Students will be placed in small groups of 1 supervisors: 2 students, which will be known as the research unit. The unit will be responsible for producing one publication and poster/oral presentation.
Introduction with project supervisors	20th July – 30th July 2022	Supervisors will be expected to reach out to their assigned students to have a meeting to discuss research interests, experiences, work strategies, and potential research ideas.
1. Introduction to Clinical Research Methodology	20th July 2022	The different types of clinical research will be explained in depth and students will be expected to be able to assess the strengths and weaknesses of all the different types of study types and methodologies to answering clinical research questions by the end of it. They will also be able to distinguish between qualitative and quantitative research.
2. Writing and publishing research	10th August 2022	Students will be expected to understand how the scientific publishing and peer-reviewing processes work by the end of the talk. They will be able to identify the main components of a manuscript and learn about the role of authorship/contributor in publishing research. Students will further explore the role of ethics in publishing research.
3. Systematic Literature Reviews	24th August 2022	Students will be taught in-depth about how to formulate a research question that can build upon existing literature. They will be taught about the utility of systematic literature reviews and how to generate them through a step-by-step and guided process.
4. Meta-analysis	7th September 2022	Understanding the utility of meta-analyses and performing a basic meta-analysis will be taught.
Idea generation deadline	14th September 2022	Students will be expected to have come up with at least two potential review research ideas with their project supervisors for discussion with the course organisers.
5. Guest Speaker [Journal Editor]	21st September 2022	A journal editor will give a talk to the students about what a journal wants and expects from a manuscript and the processes of publishing an article. Furthermore, administrative, organizational, and logistical processes of journals will be discussed.
6. Statistical Data Analysis [1]	TBC	Medical Statistics using R / SPSS (dependant on tutor)
7. Statistical Data Analysis [2]	TBC	Medical Statistics using R / SPSS (dependant on tutor)
8. Statistical Data Analysis [3]	TBC	Medical Statistics using R / SPSS (dependant on tutor)
9. Advanced Meta-analysis	TBC	How to perform more advanced meta-analysis and other forms of review analysis using more advanced software (dependant on tutor).
10. Guest Speaker [Academic Careers]	TBC	An AFP and ACF will discuss what life is like as an academic clinician.
11. Idea Generation and Data Collection	TBC	Students will discuss the process of generating research questions and then going about collecting data for it.
12. Research Questionnaire Development and Statistical Analysis	TBC	Students will be taught on how to conduct outstanding research questionnaires, how to analyse the results, and how to publish findings.
13. Fundamentals of Clinical Trials	TBC	How to apply for approval and funding to undertake a clinical trial will be discussed by an experienced tutor, and students will analyse and assess a recently completed clinical trial for better understanding.
14. Conducting a clinical audit and quality improvement project	TBC	How to identify the need for a clinical audit or QIP will be discussed and students will be taught a step-by-step process of conducting a basic closed-loop clinical audit.
15. Fundamentals of Presenting Research	TBC	Students will be taught about the processes of submitting research for presentation and how to create poster/oral presentations.
Oral presentation submission	TBC	
16. Final Research Presentations	TBC	Students will be expected to do a short oral presentation on their research to the rest of the cohort and the best research presentation (and 2 runner-ups) will be selected for a prize.

Cardiothoracic Interdisciplinary Research Network (CIRN)

Luke Rogers, NTN Trainee, Bristol Royal Infirmary
Ricky Vaja, Cardiothoracic Registrar, Royal Brompton Hospital, London
Ann Cheng, NTN Trainee, Northern General Hospital, Sheffield
Brianda Ripoll, NTN Trainee, Castle Hill Hospital, Hull
Rosalie Magboo, Senior Sister, St Bartholomews Hospital, London



The prospective of a portfolio of clinical trials is on the horizon for the Cardiothoracic Interdisciplinary Research Network (CIRN)!

The impetus behind cardiothoracic surgery research over the last 5 years through the hard work of the Priority Setting Partnership, the SCTS, RCS, and leading individuals such as Professor Mahmoud Loubani, Professor Eric Lim, Professor Enoch Akowuah and Professor Gavin Murphy to name but a few have galvanised work towards both National and International trials. This is evolving into upwards of 6 clinical trials (Table 1) expected to start in the next few years ...

Consequently, the CIRN has an unmissable opportunity to catapult itself into an organisation that can orchestrate, recruit, and deliver, large, multicentre clinical trials across the United Kingdom and Ireland. We hope that CIRN members across every cardiothoracic surgery centre in the UK and Ireland will be in a position to recruit patients to these trials and the most motivated amongst you able to take up roles as Associate Principle Investigators (API's) for these trials.

To that end, if you have not already done so, email the CIRN at CIRNetwork@outlook.com with your name, current place of work (and expected future locations if

due to change) and your level of training if appropriate. CIRN membership and subsequent involvement in any of these trials will be possible for ALL healthcare professionals including nurses, surgical care practitioners, perfusionists and anaesthetists for example. It is also worth noting, that the NIHR API scheme is open to healthcare professionals and not just limited to doctors. For any more information, simply get in touch.

Patient & Public Involvement (PPI)

The recent SCTS Annual Conference provided an opportunity for the CIRN's PPI Co-Lead Keith Wilson to present the findings of a rapid review looking at "Consent in Cardiac Surgery: A National Multicentre Audit". Despite a technical glitch preventing questions, this audit included over half the UK and Ireland centres, despite conception to completion only being 3 weeks. This work illustrated notable variation in the complications discussed with patients and how these are quantified – if at all. This was something that had resonated personally with Keith throughout our regular meetings and we hope will lead to a programme of work exploring "shared decision making" in cardiac surgery. Recently appointed aSSL's, Miss Ann Cheng (Sheffield University Teaching Hospitals) and Miss Brianda Ripoll (Castle Hill Hospital, Hull University Teaching Hospitals) will be leading on this work and said the following ...

"We're incredibly excited to undertake such a large programme on behalf of the CIRN, with the full support of the PPI group. There is no doubt that development of a 'toolkit' for shared decision making (SDM) in cardiac surgery will benefit patients

Trial Name	Funder	Description
Tight K (recruiting)	BHF	Potassium management post cardiac surgery and arrhythmias
CO2 (recruiting)	EME	CO2 insufflation and brain protection during open-heart surgery
PROMPT (recruiting)	EME	Propofol cardioplegia for myocardial protection
PaCES	NIH	Anticoagulation for new-onset POAF after CABG
PRIMARY	NIH	Percutaneous or Surgical Mitral Valve Repair
TRICS IV	HTA	Transfusion requirements in younger patients undergoing cardiac surgery
PROTECT MVR	HTA (Stage 2)	Optimum therapy for thromboembolic complications after mitral valve repair
FARSTER	HTA (Stage 1)	Feasibility study of early outpatient review and early cardiac rehabilitation after CABG: mixed methods research design
PROPHECY	HTA (Stage 1)	Pragmatic pilot of prothrombin complex concentrate versus fresh frozen plasma in cardiac surgery

who have to make such a tremendous life decision, but also clinicians. Assisting them to realise the crucial ways in which we can help our patients and improve clinical practice. There is so much potential and so much work to be done in the field of SDM, particularly within cardiac surgery but also in cardiovascular disease as a whole. We hope those with expertise in this field or those with an interest will join us in developing this program of work and make a lasting, positive impact to the lives of the patients we serve.”

– Ann and Brianda

Target Wound Infection

The first successful NIHR Program Development Grant awarded to the CIRN – Target Wound Infection commenced in January 2022 following a notable delay off the back of the COVID-19 pandemic. It is, however, now in full swing, with data extraction ongoing for Work Package 1; a systematic review of predictors for surgical site infection (SSI) in clean surgery. Centre surveys have already been completed for every cardiac centre in England, and staff and patient

interviews are currently underway to identify barriers to infection prevention (Work Package 2). Work Package 3 will assess challenges to SSI surveillance in collaboration with the UK Health Security Agency (UKHSA) formerly Public Health England (PHE) and is due to start on time, this summer.

Although many trainees, nurses and students are already involved with this work please get in touch if you want to be involved. We hope this work will underpin a Programme Grant for Applied Research (PGfAR) in the coming months and will be looking to utilize the NIHR API scheme to ensure centre leads are recognised for their contribution in addition to the expected publications from this work.

Committee & Terms of Reference Update

It is clear to see the momentum the cardiothoracic surgical research community has generated just from the landmarks outlined above, let alone the other articles within this issue of the Bulletin. For the CIRNs impact to be maximized towards this endeavour it is believed that appointment of

a small, formalized steering committee may aide in the delivery of this portfolio of trials. To that end, an updated Terms of Reference is currently being drafted and following review by the SCTS Research Committee it is hoped that the new proposals will be ratified by the SCTS Executive. Although, still in the conception phase, roles are likely to involve the following, or variations thereof;

- Operations & Communications Lead
- Finance Lead
- Social Media Lead
- Foundation & Core Representative
- Medical Student Representative

Positions will be open to **ALL** and decided upon by the CIRN Executive Committee. The final Terms of Reference and subsequent adverts will be circulated via the SCTS and CIRN mailing list ... in case you needed another reason to make sure you're on it!

If you are interested in any of the work outlined, have particular expertise in the ethical, moral or legal aspects surrounding consent and/or shared decision making, do not hesitate to get in touch. You can email us as at CIRNetwork@outlook.com and follow us on Twitter @CIRNetwork. ■

Launch of research mentorship in Cardiac Surgery

Marius Roman (NTN Trainee), Enoch Akowuah (Consultant Cardiac Surgeon), Massimo Caputo (Consultant Cardiac Surgeon), Gianluca Lucchese (Consultant Cardiac Surgeon)



The SCTS Research committee has launched this year a research mentorship platform for healthcare professionals with an interest in Cardiac Surgery research. This programme is spearheaded by Mr Gianluca Lucchese and Professor Enoch Akowuah and draws upon the success of the Thoracic Surgery research mentoring led by Professor Eric Lim. The programme aims to support the career development of a broad range of healthcare professionals with a research interest in Cardiac Surgery in the United Kingdom.

The key objectives of this initiative are to:

- Provide peer review and expertise on planned research from the research question stage to publication and dissemination.

- Extend the number of healthcare professionals pursuing research, especially from allied health professionals.
- To improve the quality of cardiac surgery research produced.
- To develop mentoring relationships between individuals, and inclusion of academic leaders of the future as co-mentors.
- Review periodically the outcomes and quality of the programme.

To apply to this programme, further details will be provided in the research committee section at www.scts.org.

Participants in the programme will be supported through access to regular meetings with the mentorship group.

They will be expected to present their research proposals and results for peer review respecting research confidence. In addition, mentees will have access to bespoke advice on research methodology and research delivery.

This programme hopes to provide a kick-start in research mentorship to a wide range of mentees and extend beyond the medical community and reach out to industry partnerships. It will involve existing academic trainees and provide a platform to increase the quality of research output within Cardiac Surgery. Further, it will support researchers in submitting funding applications to charitable and government agencies. ■

SCTS Education Report

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

**Carol Tan, SCTS Co-Education Secretary,
Consultant Thoracic Surgeon, St George's Hospital, London**



We are pleased to report that since the last Bulletin we have largely re-established our entire face to face course offering as well as maintaining a number of successful virtual elements.

As we move on from the pandemic, we would like to take this opportunity to thank Sri Rathinam for his hard work and dedication to the Education team over the past eight years, and we look forward to future collaborations with him in his new role as SCTS Communications secretary.

We continue to be indebted to our subcommittee and wider faculty members both new and established, in the various education streams for their tireless and innovative efforts to provide education for our specialty. We appreciate that this has been both challenging and rewarding over the past two years in particular.

We were delighted to be able to hold our first face-to-face subcommittee meeting since the beginning of the pandemic at the Annual SCTS meeting in Belfast in May. It was fantastic to finally be able to catch up with friends & colleagues from around the country.

Industrial partnerships

SCTS Education would not exist without the ongoing generosity and support of our industrial partners. We would like to thank BD Medical, Corcym, Corza Medical, Cryolife, Edwards, Ethicon, Medtronic (cardiac and thoracic), Medistim, Terumo Aortic and Zimmer Biomet for their sponsorship and we look forward to continuing to develop such partnerships in the future.

Fellowships

We are extremely proud to be able to continue the SCTS Ethicon Fellowships and have recently announced the successful candidates this year.

We were excited to be able to announce a new collaboration with Heart Research UK at the SCTS Annual Meeting in Belfast and are looking forward to receiving applications from members for five categories of Fellowship award: medical students, trainees, teams, academic research and patient education and awareness.

We were also delighted to announce the ACT-Michael Warburg SCTS 2022 Cardiothoracic Surgery Training Fellowship. Please find further information on our current fellowships on our website:



<https://scts.org/professionals/education/fellowships/>

Consultant Education

Shahzad Raja and Prakash Punjabi continue to lead the Consultant Leadership Academy with Vijaya Nath of Contemplative Spaces. The series has received excellent feedback focusing on small groups for a more personal approach and we would like to thank Vijaya for her time and commitment over the last year and to the Lions Club, Solihull, for their financial support. The 4th and final instalment of the series concluded in June. The next Consultant Masterclass series will focus on 'What makes a good consultant surgeon' and will be led by Professor Andrew JT George. The series will start virtually on 30th September, with further dates to follow.

NTN portfolio

The Tutor's report by Elizabeth Belcher and George Asimakopoulos gives more detail on course recovery post pandemic as well as details of the realignment of the course portfolio with the new curriculum. Over the next year we will hopefully be able to complete the catch up for all NTNS and be

offering courses at the new phase 1 to 3 levels. Please bear with us during this time as it may mean trainees are invited to several courses within a relatively short period of time.

TAD Education

A significant focus over the past year by SCTS Education has been on improving equality of opportunity and access to education for our Trust appointed doctors. Zahid Mahmood and Kandadai Rammohan have been leading this with future courses planned including Professional Development and CESR application. A mentorship programme has also been developed. We continue to offer the pre-exam revision & viva course (ST6) and the Professional Development (ST7.2) courses to eligible Trust appointed doctors as well as NTNS, and plan to continue this now that face to face courses are fully re-established. We have recently seen an increase in membership of Trust Appointed colleagues and would like to encourage this in order to allow increasing numbers of participants to access our portfolio.

Congenital portfolio

We are pleased to announce the first SCTS Education dedicated congenital wetlab course was run on Thursday 9th – Friday 10th June at Ashorne Hill. We thank Prof. Attilio Lotto for his perseverance in designing & setting up the course and look forward to seeing the results in the next Bulletin.

NAHP Education

Bhuvana Krishnamoorthy continues to drive the NAHP curriculum with huge passion and enthusiasm, for which we are immensely grateful. The online programme of webinars goes from strength to strength and a new programme of face-to-face events is being planned.



Medical Student Education

Karen Booth and Farah Bhatti continue to lead the Medical student education stream which is incredibly popular. This includes both online and face-to-face activities as well as a new planned teaching programme.

In addition to the above education portfolios, we are regularly approached by enthusiastic SCTS members to look at ways of expanding the education portfolio to include areas of unmet needs. We will shortly be launching a Foundation Doctor Education Programme which will be a series of webinars aimed at both young surgeons keen to pursue a career in cardiothoracic surgeons as well as those who simply wish to broaden their knowledge.

All of the above will not be possible without the bottomless enthusiasm of everyone involved but more importantly none of this will be possible without our administrative team. We would like to thank our educational

“We continue to be indebted to our subcommittee and wider faculty members both new and established, in the various education streams for their tireless and innovative efforts to provide education for our specialty. We appreciate that this has been both challenging and rewarding over the past 2 years in particular.”

administrator Emma Piotrowski for her unwavering support and dedication to SCTS Education. We particularly appreciated her work during the testing times of the pandemic with multiple course cancellations and rescheduled events. We also thank Taet

Chesterton in supporting Emma with course logistics now that the portfolio is back on track and busier than ever. We look forward to seeing as many of you as possible over the coming months and wish everyone a healthy and happy summer. ■



Faculty and delegates at the ST7 cadaveric course in Newcastle Training Centre in March

SCTS Education Tutors' Report

Elizabeth Belcher, SCTS Thoracic Tutor, Consultant Thoracic Surgeon
George Asimakopoulos, SCTS Cardiac Tutor, Consultant Cardiac Surgeon



We are pleased to report that despite the NTN course portfolio facing further disruption in early 2022 due to the Omicron wave, the catch-up program is now almost complete. Course delivery in 2022 has been both virtual and face-to-face to maximise educational opportunities.

In January we held an SCTS Education Webinar to update trainees and trainers with regards the realignment of SCTS NTN courses to the new curriculum. This has involved bringing forward several courses to enable trainees to complete the portfolio in the new 7-year timescale for those appointed to run through training at ST1. This webinar and a graphic summarising the realignment is available on the SCTS website and explains course titles and transitions.

The ST6A&B/Phase 2: ST5 Cardiothoracic Surgery Sub-Specialty Course ran as a virtual theory course in January, and the ST8B/Phase 3: ST7.2 Leadership and Professionalism Course was also held virtually for the 2022 cohort.

Despite the requirement to hold these courses virtually, they received good feedback from participants, which included both National Trainees and Trust Appointed Doctors.

By the end of February, we were able to hold face-to-face courses with the ST7A/Phase 3: ST6 Revision & Viva Course for FRCS CTh held at Ashorne Hill for both National Trainees and Trust Appointed Doctors and the ST5B/Phase 1: ST3.2 Non-Operative Technical Skills for Surgeons (NOTSS), run at Bristol Simulation Centre. Complete catch-up for those trainees who had missed the courses during the pandemic was possible. We continue to facilitate the movement of this course to phase 1 of the curriculum.

The 2020 and 2021 ST8 cohorts were invited to cadaveric courses held in Newcastle Training Centre in March, for both thoracic and cardiac subspecialties. The first Hamburg courses were held since the start of the pandemic, with the 2022 ST8 cohort invited to attend the ST8A/ST7.1 Phase 3: Cardiac Pre-Consultant Practical Course and the 2021 and 2022 cohorts attending

the ST3B/Phase 1 ST3.1 Operative Course. Most recently, we held the ST4B/ST4.2 Core Thoracic Surgery Course and the ST3A/Phase 1 ST2.2 Introduction to Specialty Training Courses at Ashorne Hill.

Into the remainder of 2022, there is the usual full program of face-to-face NTN courses and the final catch-up courses for cohorts who missed out due to Covid-related cancellations. A bespoke ST3B/Phase 1 ST3.1 Operative Cardiothoracic Surgery Course and the practical component of ST6A&B/Phase 2: ST5 Sub-Specialty Course, postponed from February 2022, will both run in Hamburg. The courses planned for the remainder of 2022 are summarised in the table.

The 2022 SCTS Educational Operative Video Prize was awarded at the SCTS Annual Meeting. There was a high standard of entries this year, with videos submitted by both National Trainees and Trust Appointed Doctors. Six videos were shortlisted, and the winners chosen from these, by trainees attending both face-to-face and virtually. Next year's competition will welcome video

entries of the topics listed, from trainees at any stage of their training.

Ethicon has agreed provision of its Sutured Curriculum Access training packs for cardiothoracic ST1 trainees. These are designed to facilitate the faster mastery of suturing. The program consists of e-modules covering suturing techniques and tissue management coupled with physical training materials and surgical tools to hone surgical skills at an early stage.

SCTS Education has received and approved a proposal for an SCTS Foundations of Cardiothoracic Surgery Teaching Program, following a successful pilot in 2021 by the SCTS Trainee Committee. This program aims to bridge the gap between medical school and specialty training. Structured delivery of key topics in cardiothoracic surgery in the form of online lectures will be available to foundation doctors and core trainees.

As tutors we are grateful to the course directors and faculty, who continue to provide high quality teaching to our trainees. We are particularly thankful for their patience during the recent Omicron wave, where courses were cancelled and rearranged at short notice, and

in a variety of venues.

We would like to express our continued thanks to Emma Piotrowski and Taet Chesterton in the SCTS Education administration team. They have worked relentlessly to provide both virtual and UK-based courses in the first two months of this year, and more recently overseen the return to face-to-face courses.

Given the disruption of the pandemic, we would urge each trainee to contact SCTS Education (emma@scts.org) to ensure we have your correct contact details, including email address, phone 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 received enquiries from some trainees as to whether the SCTS NTN courses are compulsory.



Whilst attendance does not form part of the CCT requirements, there is an expectation that having been appointed through National Selection, NTN's will engage with the SCTS Education program. These courses are provided free of charge to trainees by the SCTS, with support from industry. They align with the Cardiothoracic Curriculum and are approved by the SAC. The feedback we receive from attendees confirms these courses to be of high quality and educational relevance. We would urge you to attend when invited and look forward to welcoming you onto your next SCTS NTN course. ■

2022 Course Programme

Future Courses 2022	Location	Date	Trainee Cohort
ST7A Revision & Viva Course for FRCS (CTh) Phase 3: ST6 Revision & Viva Course for the FRCS (CTh)	Ashorne Hill	12th-15th September	Autumn exam cohort
Bespoke catch up course at ST5 level for ST3B Phase 1 ST3.1 Operative Cardiothoracic Surgery Course	J&J, Hamburg	27th & 28th / 29th & 30th September	ST3 2020 & 2021 cohort
ST5B Non operative technical skills for surgeons (NOTSS) ST3.2 Phase 1: Non operative technical skills for surgeons (NOTSS)	Bristol Simulation Centre	29th & 30th September	2022 cohorts
ST2 Essential Skills in Cardiothoracic Surgery Course Phase 1: ST2.1 Essential Skills in Cardiothoracic Surgery Course	Nottingham City Hospital	TBC	2022 Cohorts
The ST6A & ST6B Sub-Specialty Practical Course Phase 2: ST5 Cardiothoracic Surgery Sub-Specialty Practical Course postponed from February 2022	J&J, Hamburg	1st-4th November	2021 and 2022 cohorts
ST4A Core Cardiac Surgery course Phase 2: ST4.1 Core Cardiac Surgery Course	Ashorne Hill	21st-23rd November	2022 cohort
ST1 General Surgical Competencies Course Phase 1: ST1 General Surgical Competencies Course	Ashorne Hill	2nd December	2022 cohort
ST8B Leadership and Professionalism Course Phase 3: ST7.2 Leadership and Professionalism Course	Ashorne Hill	5th & 6th December	2022 cohort

Using Coronavirus (COVID-19) as a Springboard for Developing Surgical Education

Ahmed M A Shafi, ST2 Trainee, Royal Papworth Hospital, Cambridge

Daniel Sitaranjan, ST7 Trainee, Royal Papworth Hospital, Cambridge

Muhammad Umar Rafiq, Consultant Cardiac and Transplant Surgeon, Royal Papworth Hospital, Cambridge

Coronavirus (COVID-19) had a significant impact across the healthcare sector and its impact on surgical training across all specialities had been widely reported within the literature. Cardiothoracic surgery, a speciality heavily dependent on intensive care resources may have been more affected than other specialities, because the resources were re-allocated to address the COVID-19 pandemic. This resulted in cancellations and curtailment of elective surgery in addition to centralisation of cardiothoracic services. Surgery was not the only area of training that was affected but the impact carried over to outpatient encounters, conferences and courses.

As we emerge out of the stranglehold resulting from COVID-19, the number of operations being performed are gradually increasing. Further issues related to workforce have become prominent with lack of staffing resulting in cancelled operations; this could be a result of a multitude of factors including burnout following the demands placed on healthcare workers during the pandemic, in addition to new immigration laws following Brexit.

Utilisation of Technology

Due to COVID-19 there was a sudden change in interaction in both our professional and personal life. This was related to the restriction put in place in order to limit the spread of a new rapidly spreading variant. However, to overcome this issue technology was rapidly integrated into our daily working lives, from allowing remote meetings to virtual clinics. This adaptive response was also utilised to address restrictions related to training and education with a number of conferences turned into virtual conferences. At our institution, we are now utilising technology to continue our departmental teaching despite restrictions. This has also been utilised by the national weekly teaching offered by the SCTS. Although with any new technology there are a few teething issues, we have been able to overcome these and continue to utilise virtual meeting boards in addition to face-to-face teaching, allowing those to join who may not be at work.

Keeping up to date with literature

COVID-19 resulted in a tsunami of newly published research as the effects of COVID-19 on the cardiovascular system and implications for surgery were becoming better understood. This in combination with reduced surgical time in theatre allowed trainees across all specialities to engage in research at regional, national and international levels. Subsequently we developed a weekly journal club teaching session to allow trainees to analyse the ever-growing literature developing their critical appraisal and analytical skills.

Surgical Simulation

However, for surgeons a paramount part of training is hands-on in operating theatres. Simulation has been shown to allow surgical development and has been adopted and heavily integrated across a number of surgical specialities such as general surgery and urology; but in comparison, it is not fully integrated in Cardiothoracic surgery. For example in the United States they developed an intensive preparatory training curriculum inclusive of cognitive and procedural skills, training activities considered essential for early clinical management forming a 'Boot Camp' lasting a total of 9 weeks (an example can be seen here; <https://podcasts.apple.com/gb/podcast/tsra-podcast/id1260391045?i=1000563676257>). Consisting of mandatory weekly 1-hour and 3-hour sessions in the Simulation Centre. Additionally, they have developed the TSDA Cardiac Surgery Simulation Curriculum for trainees composed of training in six surgery modules utilising simulation models: three basic cardiac surgery procedures and three important intraoperative adverse events (<https://tsda.org/wp-content/uploads/2016/01/Cardiac-Surgery-Simulation-Curriculum-TSDA.pdf>). This is an area that should be developed, adapting a similar system to that in the United States, where departments have weekly surgical simulation teaching and should be incorporated into the surgical curriculum.

Surgical simulation models can be low- or high-fidelity, reflecting the level of resemblance

of the model to reality. Low-fidelity models often allow for practice of individual skills or techniques, while high-fidelity models can replicate an entire surgery with a high degree of realism. Although surgical simulation demands financial support and utilisation of high-fidelity models to facilitate close replication of actual operating and tissue handling, a programme in which there is a mix of low to high fidelity models would allow a more robust development of a simulation curriculum. This may not entail the financial cost associated with high-fidelity models e.g., cadaveric tissue, which can be reserved for a dedicated yearly or bi-yearly session. Although as an institution we facilitate regional simulation courses, a more well developed and integrated simulation curriculum to match trainees' level of training would have allowed surgical training to continue in the midst of the pandemic. The negative effects of COVID-19 on training can be mitigated by developing a more comprehensive surgical simulation programme to run in tandem with the development of departmental and national educational initiatives.

Conclusion

The impact of COVID-19 on the surgical waiting list will likely need several years to clear the backlog. This obstacle should be overcome by developing our current training programme. With Cardiothoracic training now reduced from an 8-year programme to a 7-year programme and early specialisation, we should utilise the challenges brought by COVID-19 to ensure trainees are equipped to manage increasingly complex patients, whilst the long-term consequence of COVID-19 are unknown.

COVID-19 has introduced many challenges and highlighted many areas of vulnerability within the current training system. However, as a speciality at the forefront of surgical innovation we should not see the obstacles brought on by COVID-19 as a hindrance to training but rather embrace it as an opportunity to improve and develop a robust training system. ■

Nursing and Allied Health Professional update

Dr Bhuvanewari Krishnamoorthy, SCTS Nursing and AHP Chair, Reader in Health and Social Care and Postdoctoral NIHR Research Fellow, Medical School, Edgehill University, Manchester



It gives me great pleasure to submit my first NAHP report. There have been many developments in the last year and new themes have been introduced to encourage the development of a new leadership team, an educational portfolio and recognise previous leaders as ambassadors. We have introduced NAHP Team awards which have been a huge success. We have to disseminate good practice, recognise and share the lived experiences of our members. There is a great need for equality, diversity inclusion and accessibility (EDIA) teamwork within our AHP umbrella.

Theme 1: Leadership team development

We have developed different NAHP professional team leads who will deliver to your needs. I would like to introduce our following leads to all our NAHP members. Get in touch with us for any professional support and educational development. We are open to new ideas and new adventures. The main aim of developing this leadership team is to provide a voice for the different professional groups by their leaders.

Cardiac lead and Innovation lead

Mrs Una Ahearn (left)
Miss Kathryn Hewitt (right)



Both cardiac leads are advanced nurse practitioners from Birmingham and Liverpool NHS trust. They bring a lot of clinical knowledge and experience to our NAHP team, and both provide NAHP

representation on the SCTS Cardiac surgery committee. The first two meetings were informative and inclusive and we look forward to meaningful progression in the post covid era.



Critical Care lead Mrs Anna Gesicka

Anna is a critical care nurse with an interest in Enhanced cardiac recovery and surgical site infection.



Communication lead Miss Jeni Palima

Jeni is an experienced surgical care practitioner from Wolverhampton hospital. She is very talented in video editing and setting up online courses. Her hard work during the COVID-pandemic has been published recently in the Journal of Surgical Simulation, May 2022 edition. More details below in the publication section of this report.



Meeting lead Mrs Daisy Sandeman

Daisy is an experienced Advanced Nurse Practitioner from Glasgow. Her tremendous work to change the “CT forum” to “NAHP CT forum” was welcomed by all members. She has developed and connected many national and international elements as part of our CT forum. More details about our SCTS 2022 meeting in the annual meeting report.



Membership lead Mrs Jane Dickson

Jane is a physiotherapist from Ireland. She is interested in promoting the work of the NAHP SCTS network across Ireland. She has developed a flyer and a membership survey which will be published in our next SCTS Bulletin.



Physiotherapy lead Mrs Zoe Barrett-Brown

Zoe is our physiotherapy lead with more than 10 years of experience in the CT surgical field. Zoe has been a keen leader and has brought the national physiotherapy team together during this COVID pandemic. This group provides and supports physiotherapists across Great Britain and Ireland to develop and disseminate their excellent work. She is aiming to integrate the physiotherapy group with the SCTS NAHP network to give more opportunities to members and create awareness for physiotherapy non-members.



Perfusion lead Mrs Lisa Carson

Lisa has been a perfusionist for more than 15 years and she works at the University Hospital, Leicester. Her aim is to develop educational portfolios and bring national perfusionists together. She strongly believes that perfusionists under the umbrella of the SCTS NAHP team will gain access to fellowship opportunities, national chair positions and educational developments.

Upcoming events

An ECMO educational course is planned for December 2022. The focus will be on sharing knowledge from staff that make up the multidisciplinary ECMO team. It is hoped this will be a meeting in-person, to allow for the simulation aspect of the course and cannulation exposure.



Patient safety lead Miss Jody Stafford

Jody is a perfusionist with an interest in developing simulation-

based courses on patient safety. Jody won the NAHP fellowship in 2019 and disseminated her fellowship work across Great Britain and Ireland.

Research and Audit leads

- Mrs Rosalie Magboo (top left)
- Miss Hemangi Chavan (top right)
- Mrs Zainab Khanbhai (bottom left)
- Mrs Nisha Bhudia (bottom right)



We have appointed four leads due to the workload of the research and audit committee. Rosalie and Hemangi are advanced nurse practitioners. Nisha and Zainab are pharmacists. These four leads have initiated national audits and have shed a lot of light on the NAHP research theme of our society.



Thoracic surgery lead

Mrs Xiaohui Liu

Xiaohui Liu (Winnie) is an advanced nurse practitioner from Southampton University hospitals.

Her breadth of knowledge to develop the thoracic care pathway to improve patient care delivery has transformed the clinical thoracic surgery practices across England.

Theme 2: Educational portfolio development

This year we have developed three full day virtual courses due to uncertainty and shortages of NAHP staff in the NHS. More courses are to come such as the Enhanced Cardiac Recovery Pathway and Nurse/AHP led clinic in June and July 2022. This pattern of one virtual course every month will be released by the NAHP educational team. From September onwards, we have allocated courses such as Endoscopic conduit harvesting course, aortic dissection course etc.

The one-day course was aimed at nurses, allied health professionals, surgical care practitioners, operation department practitioners, physiotherapist and foundation doctors.

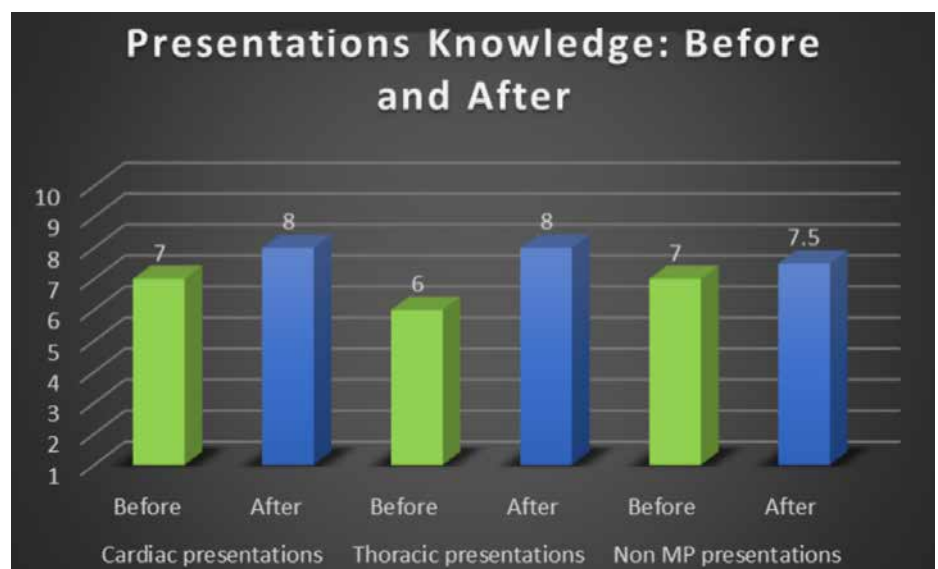
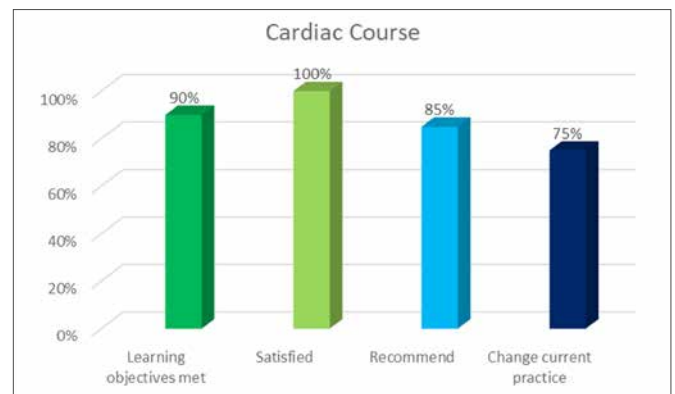
This course was successfully organised and chaired by NAHP lead Dr Bhuvana Krishnamoorthy and NAHP subcommittee lead Mrs Xiao Liu and Miss Hemangi Chavan. The course was accredited with 5 points CPD with certificate. All the courses are free for all SCTS members with £20 refundable deposit and £60 for non-members. (SCTS membership is £30 per year for NAHPs and £15 for international members).

The overall knowledge of the objectives of the three courses, before and after they were held, were analysed (bottom image). The median score was above 7.5 after all the three courses by the candidates who attended the courses.

Core Cardiac Skills course

Miss Kathryn Hewitt
Miss Lisa Carson

In March of this year, a core cardiac course was run. True to the ethos of SCTS NAHP, a range of clinical staff presented on their involvement in the cardiac surgery pathway. With Covid 19 still prevalent,



a virtual meeting was a sensible option. There were several benefits to using this platform; delegates did not need to travel and found it easier to work around their other commitments. Furthermore, a more significant number of representatives could attend. A wide range of subjects were well presented, and there was a lot of information to digest. The feedback from the course highlighted all attendees were not only satisfied with the course but would recommend it to others. Excitingly 75% of delegates confirmed they would change their clinical practice following the course (left).

Non-medical prescribing course

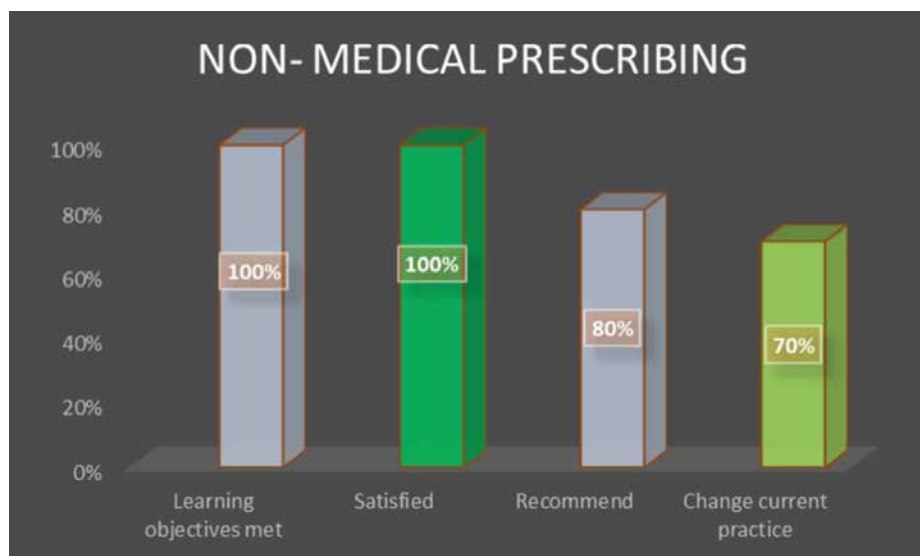
Mrs Tara Bartley

Dr Bhuvaneswari Krishnamoorthy

The first Core Non-medical prescribing course took place in March 2022. The course will be available in March every year. It is a one-day course, which could be extended to two days if there is a demand from the delegates. We had 24 delegates attending this event with 15 faculty members across England.

The course feedback was excellent including 98 % of attendees who said that the course was well organised and interactive sessions were most useful. 99% mentioned that all points were covered as per learning objectives. 100% said that it was easy to attend online and no need to travel or find childcare. 96% said that all the information in the presentations was up to date and there were a good selection of talks. They have also mentioned that longer lunch times would have been better.

The course director acknowledges that some of the presentations overran which should be monitored carefully to avoid putting pressure on the late presenters.



Thoracic course

Mrs Xiahoui Liu

Miss Hemangi Chavan

The first Core Thoracic Surgery Skill Programme took place in January 2022. The course will be available in January each year. It is a one-day course, which could be extended to two days if there is greater demand from delegates.

The aim of the course was to provide an overview of management and treatment of thoracic surgical patients. The morning session was aimed at theoretical aspects including thoracic anatomy and physiology, clinical presentations and diagnosis, preoperative assessment and optimisation, empyema, lung volume reduction surgery and post-operative complications.

The afternoon session was more practical and interactive and included chest x-ray, CT scan, PET scan interpretation, post-operative trouble shooting, tracheostomy insertion and management and followed

by a quiz session. Unfortunately, we were not able to present the chest drain management session, however, this session was delivered with lung stapling including a demonstration from Medtronic representatives instead. The course was received very well. It was conducted virtually due to the uncertainty over the pandemic period. The faculty included consultant thoracic surgeons and senior allied health professionals. The total number of delegates and faculties participated were 48.

For the first time this course attracted international delegates. They were invited to become SCTS members at a reduced rate and with free access to all the courses. We are planning to run this course every year face-to-face with hands on practical sessions such as chest drain insertion and management.

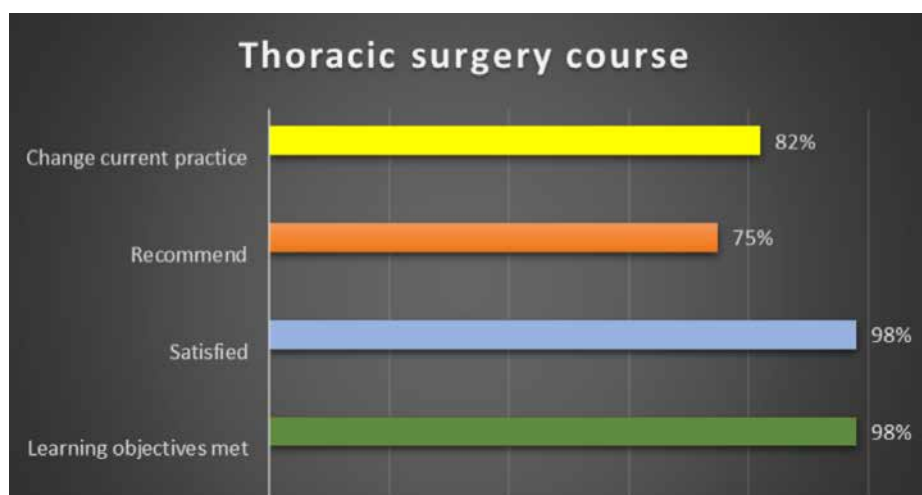
University day

Dr Bhuvaneswari Krishnamoorthy

Mrs Tara Bartley

Miss Sophia Wang

We had our university day on Sunday 8th May 2022 in Belfast. We had morning cardiac sessions with 11 stations and afternoon thoracic sessions with 11 different stations. All these sessions were taught by various clinical trainers from surgical companies and expert NHS professionals. The first hour of the university day was attended by more than 75 medical students. They were also given the chance to do some surgical hands-on sessions. The fastest medical student completed the laparoscopic skills station in under 15 minutes. This was amazing when we compared this with our



University Day



NAHP professionals who took 18 minutes and above. We had almost more than 170 NAHPs who attended the sessions throughout the day. In addition, we had more than 50 junior doctors who attended the sessions.

I would like to say thank you to all the surgical companies who sent their clinical trainers (Atricure, ConMed, Getinge, Karl-Storz, Medtronic, Rocket Medicals, Wet lab Ltd and Medical Meats Ltd.)

Publications

I would like to thank all of our members/ non-members and faculty who have supported the delivery of online webinars during the COVID pandemic crisis. We have successfully published our feedback results in the Journal of Surgical Simulation.

Journal of Surgical Simulation 2022; 9:
DOI: <https://doi.org/10.1102/2051-7726.2022.0008>

If you are a Twitter user, it would be great if you would tweet the link to bring the article to wider attention: the best link to tweet would be the DOI link which will take readers to the abstract:

<https://doi.org/10.1102/2051-7726.2022.0008>

**Theme 3:
Making a difference award
NAHP team awards 2021**

The society’s prestigious new award scheme “Best NAHP team of the year” was introduced last year and it took place on 9th May 2022 at the SCTS annual meeting, Belfast. They recognise the role and impact of our NAHP members. They highlight an extraordinary range of new initiatives in clinical, teaching, research, and leadership. Around 21 entries were submitted this year, and we were delighted

and proud to see the outstanding and inspiring contributions of many NAHP members in the SCTS celebrated at the event. The awards were scored by five independent individuals (Mr Kendall, Miss Carol Tan, Mr Narain Moorjani, Miss Daisy Sandeman and Dr Bhuvanewari Krishnamoorthy), conflict of interest was declared to reduce any bias. The entries were amazing, and it was very hard for the team to choose the winner. Massive thanks go to our administrative lead, Ms Isabelle Ferner who has organised and supported this award presentation. Without her help, it was not possible to make this award presentation successful.

1. Best Advanced Clinical Practitioner NAHP Team of the Year 2021 was won by Queen Elizabeth Hospital Birmingham team and the runner up was City Hospital Nottingham. We would like to thank H21 surgical company for supporting this award category.
2. Best Cardiac NAHP Team of the Year 2021 was won by St. Bartholomew’s hospital and the runner up was Newcastle upon Tyne Hospitals Foundation Trust. We would like to thank Getinge International for presenting and supporting this award category.
3. Best Heart and Lung Transplant NAHP Team of the Year 2021 was won by Royal Papworth hospital team.
4. Best Perfusionist Team of the Year 201 was won by Glenfield hospital. We would like to thank The Simulator company for supporting this award category.
5. Best Pharmacist Team of the Year 2021 was won by the Harefield hospital and runner up was Liverpool Heart and Chest hospital team.
6. Best Surgical Care Practitioner Team of the Year 2021 was won by the James Cook university hospital, South Teesside and the runner up was John Radcliffe hospital, Oxford.

**Theme 4:
Ambassador roles**

We strongly believe that experienced NAHP executives form the foundation of our

NAHP team awards 2021



society. We have created these ambassador roles, which will provide great mentorship for future generations, educational faculty support and as advisors to the NAHP executive committee. Prof. Julie Sanders, Mrs Amanda Walthew and Mrs Tara Bartley (pictured above, clockwise starting top left) have been appointed successfully to this role. We are waiting to hear from the other two past executives.

Association of Cardiothoracic Surgical Practitioner: Dual membership

As a surgical care practitioner, it is vital for us to be one team to get the full benefit of the SCTS and ACT SCP associations. If you are a surgical care practitioner, please come and join us to get the dual benefits.

SCP voluntary registration: MVR

The Management of the Voluntary Registration group was set up by Royal College of Surgeons, Edinburgh 6 months ago and it has been very successful. The bill has been passed through the executives and stakeholders. The main aim of the MVR is to identify and register all surgical care practitioners in Great Britain and Ireland and to move them in the next few years to GMC registration under the Medical Associate Professionals (MAP) umbrella. More details to follow in the coming months via our SCTS newsletter.

Trainee SCP new three years curriculum: The current RCS England

curriculum is not broad enough and it was not tailored to the needs of the trainee SCP. This was highlighted by the ACTSCP and SCTS in many meetings with the RCS. The bi-collegiate project between RCS Eng and RCSEd was started a year ago and it was completed a month ago. The new curriculum will provide all trainee SCPs with only the MSc surgical practice qualifications across the board. It will be a three-year master's programme with competency-based training instead of time-based curriculum. This new curriculum will allow the SCPs to have dual specialities such as CT & vascular instead of one surgical speciality qualification. This will standardise the education of all SCPs in Great Britain and Ireland.

Report from ACTSCP treasurer Mr. Janesh Nair and Cardiac Chair Miss. Cristina Ruiz Segria

The only words that spring to our minds after the SCTS Belfast 2022 is "what an amazing experience!" It certainly was a pleasure meeting people in person and discussing futuristic projects with fantastic



professionals in a national conference. The NAHP CT forum had participation with lots of interesting projects outside the COVID sphere, which has typically been a central theme of the more recent events. All presentations had an energetic flare with enthusiastic speakers captivating the audience about exciting projects whilst working within motivated teams.

The team awards were the icing on the cake, adding an extra dimension to the conference. This was also a first, with SCTS/ACT SCP rewarding innovation alongside the consistent excellent care provided to patients and families by the wider multidisciplinary team.

Miss Shanan Pierre
Surgical Care Practitioner
Swann-Morton prize winner 2019

Shanan has been a qualified Surgical Care practitioner for the past 3 years and has been working in cardiothoracic surgery at Sheffield

teaching hospitals. She was trained as an adult nurse working the wards of trauma and orthopaedics, then transitioned to theatres working as a cardiothoracic scrub nurse for a short period of time, before discovering her passion for the SCP trainee role.

From there, she went on to study MSc Surgical Practice and qualified with a MSc degree from a UK university. She has also completed an additional RCS Edinburgh/Society of Cardiothoracic Surgery Association Accredited Surgical care practitioners' diploma in Surgical practice in Cardiothoracic surgery clinical exit examination in 2019. She scored the highest mark in this clinical examination and won the precious Swann-Morton award for her achievements.

Gaining these additional clinical qualifications provides rigorous training and ensures that the quality of care provided to patients is of the highest standards, underpinned with good knowledge

and sound rationale. We would like to congratulate Miss. Shanan Pierre for her hard work, and we wish her all the best for her future.

SCTS Research and Audit Committee Update

Research and Audit University Day Rosalie, Nisha, Hemangi and Zainab

We were delighted to host our first face-to-face Nursing and Allied Health Professional (NAHP) university research and audit day at the 2022 annual meeting in Belfast. It aims to encourage, promote and assist in the development of a NAHP clinical academic career and research and audit opportunities in cardiothoracic surgery in the UK.

The session was divided into two parts with the morning session dedicated to research and the afternoon to audit. The research sessions included topics on clinical academic pathways, getting started with clinical academic careers in the NHS and different funding opportunities delivered by esteemed speakers from the National Institute for Health Research (Mr Richard Milham), St Bartholomew's Hospital (Prof Julie Sanders) and Brunel University of London (Dr Claire Nolan). We also heard the top tips on clinical academic career in practice from Ms Triaxia Arcegono, Ms Haifa Lyster and Dr Bhuvana Krishnamoorthy.

We launched the research mentorship programme led by Ms Rosalie Magboo and Ms Zainab Khanbhai. The programme will provide SCTS members with access to a 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 questions to building clinical academic career and potentially developing world-class research. As a new initiative, we invited delegates to share their opinion through an interactive session on how we can further improve the format and delivery of the programme. Results of the survey will be used to redesign the project.

The afternoon was a very interactive session on: 'What makes a successful audit to improve cardiothoracic services and patient care?' delivered by our very own, Mr Shahzad Raja. Sessions on service evaluation and quality improvement (QI) were delivered by Ms Xiaohui Liu and Ms Nisha Bhudia,



Shanan Pierre - winner of the Swann-Morton award

Research and Audit University Day



“We were delighted to host our first face-to-face NAHP university research and audit day at the 2022 annual meeting. It aims to encourage, promote and assist in the development of a NAHP clinical academic career and research and audit opportunities in cardiothoracic surgery.”

respectively. There were a lot of discussions, practical advice and encouragement from the panel members on how to get involved with conducting audits, service evaluation and QI projects locally and nationally. The day was concluded with the introduction of the national QI project on prevention of atrial fibrillation after cardiac surgery (details below). Overall, the day was a huge success in achieving our aim with excellent feedback from the delegates.

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

This is a multicentre audit and a part of a wider project and data collection initiative looking at AFACS supported by the SCTS audit committee. The project was already successfully implemented at a single centre and had shown significant reduction in the incidence of AFACS by early beta-blocker administration post cardiac surgery and improving adherence to agreed AF prevention care bundle. The bundle is no different from current practice but aims to push for consistency, education and raising awareness of introducing beta blockers as early as possible unless contraindicated. This initiative was also recognised internationally and had been included in the 2021 AF Association Healthcare Pioneer Report: [https://www.heartrhythmalliance.org/files/files/Healthcare%20Pioneers%202021\(1\).pdf](https://www.heartrhythmalliance.org/files/files/Healthcare%20Pioneers%202021(1).pdf)

If you are interested to join, please contact Ms Nisha Bhudia (n.bhudia@nhs.net) and Ms Hema Chavan (h.chavan@rbht.nhs.uk), SCTS NAHP audit leads.

Upcoming events

- **Core Research Skills Course:** This will be held virtually on September 17 2022, 9am - 4pm and open for all SCTS NAHP members and foundation doctors.
- **The SCTS National Cardiothoracic Research Meeting:** The meeting will be held virtually on Friday 4 November 2022 and the deadline for abstract submission is August 29.
- **Research Mentorship Programme:** Details of joining will be available soon and emailed to all NAHP members and foundation doctors. ■

Harefield Hospital Pharmacy Team: Best Pharmacist Team of the Year

Success is a journey, not a destination.

Shahzad Raja, Consultant Cardiac Surgeon, Harefield Hospital



The email from Isabelle on 23rd February 2022 confirming that Harefield Hospital Pharmacy Team was shortlisted as one of the two top scoring applicants for “Best Pharmacist Team of the Year” was received with a sense of elation, anticipation, and gratitude by the team. The email was a particular source of joy for the senior pharmacist duo of Nisha Bhudia and Zainab Khanbhai who had put together the application. The next couple of months were spent eagerly awaiting the announcement of the winner. Finally, the wait was over and Harefield Hospital Pharmacy team was announced as the winner during the SCTS Cardiothoracic NAHP Forum in Belfast on 9th May 2022. A 3-minute video showcasing the excellent work of the Pharmacy Team was also played for the audience. Nisha Bhudia collected the award on behalf of the winning team and thanked the SCTS for the recognition. She was gracious in acknowledging that every other nominee was as capable if not more, of winning this award. She attributed the success to the dedication and selfless work of all her team members for whom she had the deepest respect.

The Harefield Pharmacy team has contributed immensely in improving and enhancing patient care. The team works together with the wider MDT and is at the forefront of innovation. The critical care and surgical pharmacy teams are working together to develop a new way to prepare patients for cardiac surgery. They show patients a video of their surgical journey prior to surgery so they are better prepared for their operation and do not experience delirium in intensive care. The surgical pharmacy team has produced content for a new thoracic app which will enable



patients to have more information about their medicines before, during and after surgery. Antimicrobial ward rounds, prompt discharges, notifying patients’ community pharmacists of any changes in therapies using a national community pharmacy database called PharmOutcomes, dedicated pharmacist led services for management of preoperative anaemia and diabetes, as well as delivery of vital medicines to heart and lung transplant patients who were shielding during the pandemic are some of the key contributions of the Harefield Pharmacy team that have positively impacted patient care and experience.

The pharmacy team also played a valuable role during the COVID-19 pandemic by providing and supporting the vaccination programme in the Trust to

protect high-risk patients, staff, and families. The pharmacy team provided patient-centred therapy with stringent infection control measures and ensured that the different pathways that were established in the Trust for COVID patients and cardiac surgery patients were respected. The pharmacy team delivered the medicines not only towards but also in quarantined areas. During the COVID-19 crisis where clinicians and nurses were overburdened, Harefield pharmacists also offered complementary expertise which strengthened the concept of collaborative working.

The Harefield Pharmacy team continues to play a vital role in the delivery of high-quality patient care and can proudly hold up the award as a mark of its glorious achievements. ■

Best Cardiac Team of the Year



Rosalie Magboo, Senior Sister, Barts Adult Critical Care Unit

We are absolutely delighted for our Pacing Champions at Barts Heart Centre, St Bartholomew's Hospital to be chosen as one of the winners of the inaugural SCTS Nursing and Allied Health Professional (NAHP) Team awards for our project on **Barts Epicardial Pacing Algorithm (BEPA)**.

Despite the obvious challenge of the Covid-19 pandemic, our pacing champions, composed of intensive care units (ICU) and high dependency units (HDU) nurses, have tirelessly worked to help improve the cardiothoracic surgery patients' safety and experience. Working in collaboration with the multi-disciplinary team of anaesthetists/intensivists, cardiologists, cardiothoracic surgeons and electrophysiologists, our champions have developed a simple epicardial pacing check algorithm, which aims to establish a daily nurse-led epicardial pacing check procedure. To our knowledge, this is the first nurse-led pacing check protocol of its kind in the country.

This project was developed in response to an identified deficit in epicardial pacing checking in our cardiothoracic ICU/HDUs. As we already know, temporary epicardial pacing is routinely placed in

patients following cardiac surgery to manage arrhythmias including ventricular arrhythmias and conduction disturbances. A known complication of epicardial pacing is an increase in capture threshold over time. Given the risk of arrhythmias after cardiac surgery, it is important to ensure that epicardial pacing is functional and able to safely pace the ventricles should a patient become pacing dependent. Through the use of the BEPA, our champions have managed to empower the ICU/HDU nurses and junior doctors to routinely assess underlying rhythm and ventricular threshold daily in all post-cardiac surgery patients who are being paced or with backup settings.

Together with a team of anaesthetists and intensivists, we delivered a series of training sessions for critical care doctors and nurses, in order to make all staff competent at performing checks independently. We also provided constant reminders through posters and repeated training sessions to motivate and keep everyone engaged with the project.

The result of this initiative has been phenomenal. After just six months of implementation, the protocol has already been part of the daily nursing safety checks and the medical staff admission clerking from

theatre. This is evidenced by a significant improvement in the nursing and medical documentation of the underlying rhythm and threshold, from 50% to 100% (for underlying rhythm documentation) and 10% to 95% (for ventricular threshold documentation). General feedback also indicates that nurses have become more confident at independently performing the pacing checks.

What are the impacts of the initiative?

1. The project has significantly improved the overall awareness of pacing issues, which is important to promote patient's safety.
2. Nurses and junior doctors felt more competent and empowered to discuss pacing issues in the ward round, which helped the team address any pacing problems quickly.
3. We have made use of our resources more efficiently as it helped us to plan ahead on the number of patients who are most likely to move out / stay in ICU and HDU.
4. Although we are still at the early stage of the project, we are expecting an increase in the number of early referral of patients for cardiology/electrophysiology review which will potentially shorten patients' ICU/hospital length of stay. Ultimately, this will improve the overall patients' experience of their surgery.

This project is very simple and can easily be shared and implemented in other centres. And once fully embedded in practice, it doesn't require any further input from the people who developed and implemented it.

What does this award mean to the team?

Winning this award further inspired us to continue become a great innovator in pursuit of furthering cardiac surgery patient safety and experience. It also motivates the whole team at Barts to start with simple projects as we have proven that even the small things that we do can make a huge difference to our patients. ■



Barts pacing champions

SCTS NAHP Team Award – Best Thoracic Team

Doug West, Consultant Thoracic Surgeon, Bristol Royal Infirmary



The thoracic CNS team at University Hospitals Bristol has evolved and expanded rapidly in recent years, as the service has expanded and introduced new ways of working. We now comprise three nurse specialists, working across the whole patient pathway from pre-operative assessment to long term follow up.

Pathway

We support patients throughout their journey. We see patients in the pre-operative assessment clinic, working together with the prehabilitation physiotherapy team and surgeons. We aim to optimise patients' fitness for surgery, make sure that they understand the treatment involved, and support patients and families with any questions or concerns. We act as a patient advocate during lung cancer MDT and complex case review meetings, when decisions about fitness and treatment are being made.

We attend daily weekday ward rounds, answering patients' concerns and supporting communication around new diagnoses or treatment plans as well as supporting ward nurses with drain removal and early discharges.

Another important part of our role is to provide education and support to the ward nursing team. This includes core thoracic skills like chest drain care and removal, as well as supporting innovative practice, for example day of surgery drain removal and new chest drain systems. We welcome



nursing students to spend time with us and get an overview of our role and the pathway for patients receiving lung cancer treatment.

We now routinely call patients one week after discharge, reinforcing advice on mobilisation and enhanced recovery, and answering queries about symptoms, early recovery and follow-on care. Audit of this service has helped us look at most recurrent problems post discharge, develop further written information to provide patients on

discharge and educate new ward nurses and doctors completing discharge summaries.

For patients with prolonged air leaks, long term chest drains or complex wound problems, we provide a weekly chest drain and wound clinic. This allows patients with prolonged air leak after surgery the option of completing their recovery at home. Pre-discharge written and verbal advice is provided, after which patients attend a weekly face to face. Telephone support is available

between clinic visits. Audit of the service has shown significantly reduced length of stay in these patients.

Response to COVID

The COVID-19 pandemic required rapid change to protect our often vulnerable patient group, while still delivering safe care. Our team developed video resources for District nurses to support patients discharged with chest drains, reducing the frequency of hospital attendance. Feedback from District Nurses was very positive and they felt well supported during this challenging time. The nurse-led follow up clinic was quickly moved to a virtual model, allowing patients to continue cancer surgery follow up without having to attend in person for clinic appointments. The CNS clinic database was put to a new purpose, identifying potentially highly vulnerable patients in the first national lockdown. As COVID-19 restrictions have eased, we have been able to continue offering a choice of face-to-face or telephone appointments for patients.

Innovation

The CNS team have recently developed immediate discharge packs and standardised prescription stickers to support prescribing of nicotine replacement in the pre-operative clinic. They help to reinforce other aspects of enhanced recovery in the pre-operative clinic and on inpatient ward rounds.

The team now deliver all long-term follow up appointments after cancer surgery at the main UHBW site, meeting the NICE guidance that patients should have the option of nurse-led follow up after lung cancer treatment. After visiting an established service in Oxford, the team worked closely with surgeons and radiologists to develop a protocolised, nurse led follow up service with a mix of appointments and CT-scan imaging to deliver a holistic, patient-focussed service. Patient feedback has been excellent, and the number of referrals to supporting services like pain team and respiratory rehabilitation has increased. Using ESMO guidelines, the service was expanded to patients undergoing thymoma and carcinoid resections.

Reflection, audit and service improvement

The team have maintained a local database to support their long term follow up and post operative follow up clinics. This has allowed audit of their service, and several projects have been presented at Division of Surgery audit rounds, and at the SCTS forum.

We are delighted to have won the Best Thoracic NAHP Team of the Year award, which recognizes our continuous dedication to the thoracic specialty, to our patients and to the thoracic ward. We feel very privileged to be part of an experienced multidisciplinary team which complements our role in constantly striving to promote and deliver best patient care. As lung cancer treatment continues expanding and lung cancer screening commences in the South West, we know there are exciting challenges to come for the team and we look forward to meeting these with enthusiasm, drive and adaptability. ■



Control Aortic Bleeding with Aquabrid™ Surgical Sealant

AQUABRID is a fully synthetic surgical sealant indicated for aortic procedures. In contact with water AQUABRID forms an elastic layer. It stretches and shrinks with contraction of the vessel, while maintaining a strong seal in the aorta.¹

**Interested in our product?
Contact us directly:**

TERUMO UK Ltd.
Otium House, 2 Freemantle Road, Bagshot,
Surrey, GU19 5LL, U.K.
Phone: +44 77 40 40 54 71,
E-mail: laura.haughton@terumo-europe.com



© 2022 Terumo Cardiovascular Systems Corporation. CV385GB-0722 SK-I(07.22)E. Terumo is a trademarks of TERUMO CORPORATION and their respective owners in the European Union. AQUABRID™ is registered trademark of Sanyo Chemical Industries, Ltd.

¹ Refer to IFU for correct product usage.



Clinical Perfusion Team – University Hospitals of Leicester



Lisa Carson, Perfusionist, Glenfield Hospital, Leicester

At University Hospitals of Leicester both, adult and congenital cardiothoracic surgery is undertaken. Adult surgery is based at Glenfield hospital whereas paediatric (congenital) work is undertaken in the newly built children's hospital at the Leicester Royal Infirmary. The Perfusion team are primarily located in the operating theatre and are responsible for the assembly and the running of the heart-lung machine. Further perfusion support is also provided on ITU, in Cath labs and on the coronary care unit, often in the form of IABP (intra aortic balloon pump) support or cell salvage.

In conjunction with supporting the cardiac surgery service the perfusion department are involved in providing both an adult and paediatric, respiratory ECMO (Extra Corporeal Membrane Oxygenation) service. This includes the provision of mobile ECMO for adults and are currently

the only centre in the UK that provide mobile ECMO for children.

ECMO

ECMO therapy was introduced to the UK by Richard Firmin and Andrzej Sosnowski, based at Glenfield Hospital (then Groby Road Hospital) in 1982. This treatment was generously supported by Heart Link Children's Charity until ECMO was recognised as a credible treatment and official funding was obtained. Glenfield Hospital has since become one of the world's busiest ECMO (extra corporeal membrane oxygenations) centres.

Within the ECMO programme, the Perfusionists are responsible for the assembly and priming of the ECMO circuit. Once the patient is cannulated and placed on ECMO the Perfusionist remains with the circuit until

the patient is back on ITU and handed over to the ECMO Nurse specialist, who will often look after the ECMO circuit and patient. Historically, it was the role of the Perfusionist to remain with the ECMO circuit given that it was an extension of the equipment Perfusionists use in theatres. However, with technological advancements making the circuits safer requiring less intervention, combined with the increase in the number of ECMO's undertaken, the role of the ECMO Nurse specialist was developed.

COVID-19: Team Nomination

During the COVID -19 pandemic Glenfield (University Hospitals of Leicester) became one of the designated ECMO centres commissioned by NHS England for the treatment of patients with Covid pneumonitis. Although an existing adult and paediatric



respiratory ECMO centre, Glenfield was requested to increase ECMO capacity from 5 patients up to 20 patients.

Like many hospital trusts around the country, during the peak of each wave, elective operating was reduced to minimal levels, if not emergencies only. During such periods the UHL perfusion team became exceptionally busy. Not only providing mobile ECMO to an unprecedented number of patients referred to UHL, but also seeing an increase of cannulations 'in house' following conventional retrievals and patients deteriorating on our numerous Intensive Care Units.

During the early stages of the first wave, Perfusion presence on ITU was greatly increased, providing break relief for the ECMO nurse specialists looking after the ECMO circuits. However, as the requirement for ECMO continued to increase and ITU staffing levels became critical, the Trust began to look at alternative ways to staff ECMO beds. The Perfusion department began to provide ECMO specialist cover during their working day in addition to still providing break cover to ECMO nurse specialists on the Intensive Care.

By the second wave this support for the ECMO service had progressed to the Perfusion department changing their working pattern to 12-hour day shifts in line with the nursing pattern. This further developed into providing day and night (24/7) perfusion cover as ECMO Nurse specialists.

Due to the complexity/needs of this patient population, it was not deemed appropriate to use the single care model. Therefore, a Nurse was assigned to look after the patient and ECMO specialists looked after the ECMO circuit. Each specialist looked after up to four patients.

With only 11 whole time equivalent Perfusionists in the department providing mobile ECMO cover, theatre cover and 24/7 ECMO specialist cover stretched the department. The team worked hard, learnt new ITU skills and quickly adapted to a 12-hour shift pattern, days and nights, integrating into the ITU setting. In addition to undertaking onerous on calls the team had to accommodate when staff were ill, isolating or even stranded abroad. As a Perfusionist at UHL it was mentally and emotionally exhausting. We also

realised how amazing the ITU staff were doing this role day in and day out.

It is on this basis that the perfusion team was nominated for NAHP Perfusion team of the year. The Perfusion team put patients first by changing our shifts and working patterns to accommodate the number of ECMOS in the hospital (patients were our focus). We made a difference by providing extra staffing in intensive care, helping to save patients' lives (Clinical Effectiveness). A total of 93 ECMO patients during the first two waves – a great achievement! During this time the Perfusion team went above and beyond what was expected of them.

The Award

The UHL Perfusion team are thrilled to have won the NAHP-perfusion team of the year award. It is wonderful that the team's hard work and dedication has been recognised by Cardiothoracic professionals within the UK. From a personal perspective I am proud to call this group of perfusionists my colleagues and feel privileged to be part of the team! ■



Post-operative Cardiothoracic Support Bra

Approved Patent



Best Public Product
or Innovation for
Patient Safety

The BHIS Bra has been shown to provide support and comfort following cardiothoracic surgery. Designed in the UK by clinical experts in cardiothoracic surgery and surgical site infection prevention.

- Lateral side support panels designed to protect the cardiac incision.
- Triple hook and eye front opening for wound assessment and dressing.
- Breathable mesh panels to reduce moisture build up.
- Two way stretch to accommodate fluid weight gain associated with cardiac surgery.
- The BHIS bra patented design focuses on lateral support instead of conventional compression, offering uncompromised respiratory comfort.

Competitively priced and now available to order on NHS Supply Chain.

Product training and support material provided by CUI International Limited.



CUI International Limited, 31 St. John Street, Leicester, LE1 3WL
t: 0800 279 2050 f: 0116 262 5911 e: Customersupport@cuiwear.com w: www.cuiwear.com

Cardiac committee report

**Enoch Akowuah, Chair, SCTS Cardiac Committee, Consultant Cardiac Surgeon,
James Cook University Hospital, Middlesbrough**



The Adult Cardiac Surgery Subcommittee has dealt with several challenges over the last 2 years since I took over the post. Clearly the overriding issue has been dealing with the Covid pandemic which has significantly affected the practice of adult cardiac surgery in the UK and internationally over the last two years.

When I first took over the post in early 2020, we outlined a 3-year strategy which was to form the framework of our activities. This was based on feedback from colleagues highlighting what they felt were the major issues facing the specialty. We identified main issues which were:

1. Unit accreditation and a move away from surgeon specific data
2. Raising MDT standards nationally
3. Increasing sub specialisation within adult cardiac surgery
4. Innovation with good governance

as our four key objectives. Whilst we have made some significant progress against this strategy, we could not have anticipated the impact of the pandemic on our practice and in reality as the pandemic evolved, that gradually became the real focus of the work of the subcommittee.

The impact of covid 19 is now clear. Over the last 2 years we have seen a dramatic decline in the number of adult cardiac surgery procedures performed. This has been due to many challenges of which you are all aware, including staffing, loss of resources and the real individual impact of Covid 19 on all of us, our families and our colleagues. We have all seen an increase in the acuity of patients as well as the risk profile of our practice increase substantially. In fact, for the first time in the last decade, mortality from adult cardiac surgery increased in the national adult cardiac surgery audit data. Alongside these pressures, we have seen clinicians and patients opting for transcatheter solutions to their cardiac pathology. The already increasing rates of PCI and percutaneous valve therapy relative

to surgery has been 'turbo charged' over the last 2 years.

One of the striking observations has been that the impact of all these pressures was very variable across the county. While activity in some units have been disseminated, others have been able to keep activity at reasonable levels maintaining access to surgery. Similarly, as we have begun to see a recovery of activity, this is relatively patchy with some areas recovering quite strongly, but some units really struggling to get throughput back online.

Despite these challenges, the subcommittee has continued to do constructive work. We are proud to have worked with the audit subcommittee to introduce the new unit accreditation framework and it's been great to see the responses from all units. We now all have a clearer picture of where we need to improve or services so we meet national standards.

The joint work with the British Cardiac Society, the British Cardiac Intervention Society, the British Heart Valve Society and the Association for Cardiothoracic Anaesthesia and Critical Care to publish the document 'Getting the best from the Heart team' was pivotal, and we hope will form national standards throughout the country.

Alongside this we have responded to the latest guidelines from the American Heart Association for coronary artery disease by writing a joint response with the British Cardiac Society which was sent to all cardiologists and all cardiac surgeons in the UK, expressing our concerns about the change in recommendations downgrading the role of surgery.

We have also worked closely with NHS Commissioning about reprioritisation of cardiac surgery procedures nationally post pandemic. There was a drive to downgrade a number of cardiac surgery procedures to P4 on NHS waiting lists and after robust representation this decision was rescinded and cardiac surgery procedures are now P1, P2 or P3 throughout the UK.

The outlook over the next medium

term for adult cardiac surgery remains significantly challenging. It remains to be seen how well we recover from the effects of the pandemic at national level, but importantly at local levels how individual units adapt. The ability to provide a good quality service without long waiting lists and easy access to surgery for our patients is crucial to maintain our cardiac surgery activity, particularly over the next 1-2 years.

In this context our ability to continue to innovate and introduce innovations safely into our practice is key as is further entrenching the already increasing trend of sub specialisation within units to ensure patients get the very best care. These 2 issues which were key objectives 2 years ago will now move to the centre stage of our work.

Another focus over the next 12 months is to work closely with NHS England and ACTACC to raise the possibility of having elective hubs for cardiac surgery. Enhanced recovery will be a key part of that with the idea being that 'new' post cardiac surgery recovery areas are staffed until 10 pm to allow the first few cases of the day to proceed without needing traditional critical care, which remains a key bottleneck in many institutions. Progress on that will improve access to surgery for our patients.

Finally, I would like to say a huge thank you to a number of members of the subcommittee who have completed their term, Stephen Billing, Shakil Farid, Mobi Chaudhury and Thanos Athanasiou and in turn to welcome new colleagues Hari Doshi, Georgios Krasopoulos and Giovanni Mariscalco to the team. ■

References:

Archbold A, Akowuah E, Banning AP, Baumbach A, Braidley P, Cooper G, Kendall S, MacCarthy P, O'Kane P, O'Keefe N, Shah BN, Watt V, Ray S. Getting the best from the Heart Team: guidance for cardiac multidisciplinary meetings. *Heart*. 2022 May 12;108(11):e2. doi: 10.1136/heartjnl-2021-320510. PMID: 35396217

<https://heart.bmj.com/content/108/11/e2.long>

Thoracic committee report

**Aman Coonar, Chair, SCTS Thoracic Committee, Consultant Thoracic Surgeon,
Royal Papworth Hospital, Cambridge**



The thoracic surgery committee has continued with a busy programme. We have published “SCTS standards for lung volume reduction programmes” which are available from SCTS (<https://bit.ly/3xlrqaE>). This was built upon engagement with all thoracic surgery units and other Stakeholders including the British Thoracic Society and NHS England. Follow on meetings have already taken place and more are planned with more established units mentoring others.

We have continued to pursue other projects including engaging with NICE regarding pectus surgery. This has involved various stakeholders including MPs and patients. The committee

is developing a challenge to the current unequal situation in which pectus surgery is not routinely commissioned in England but is available in other nations of the UK and also in Eire.

We have developed new pathways for pneumothorax and acute airway obstruction which are going through the GIRFT/NICE process prior to publication.

Our robotic colleagues have been active and are in the process of developing standards for practice, which will relate to the training and accreditation of surgeons and units. This is tempered by a strong call to demonstrate efficacy and to justify financially.

We have seen the start of ST4 themed thoracic training to boost opportunities for committed early-stage trainees to focus earlier on thoracic surgery. We hope this

will lead to multi-programme globally competitive training opportunities.

We have expanded our committee to bring in representatives from Wales and Scotland as well as building on our links with other organisations and we welcome Malgorzata Kornaszewska (Wales), Syed Quadri (and CEG for lung cancer), Nizar Asadi (and ESTS Regent to UK) and Mathew Thomas (Scotland). All the UK nations and Eire have at least one representative compared to 2020 when all were from England.

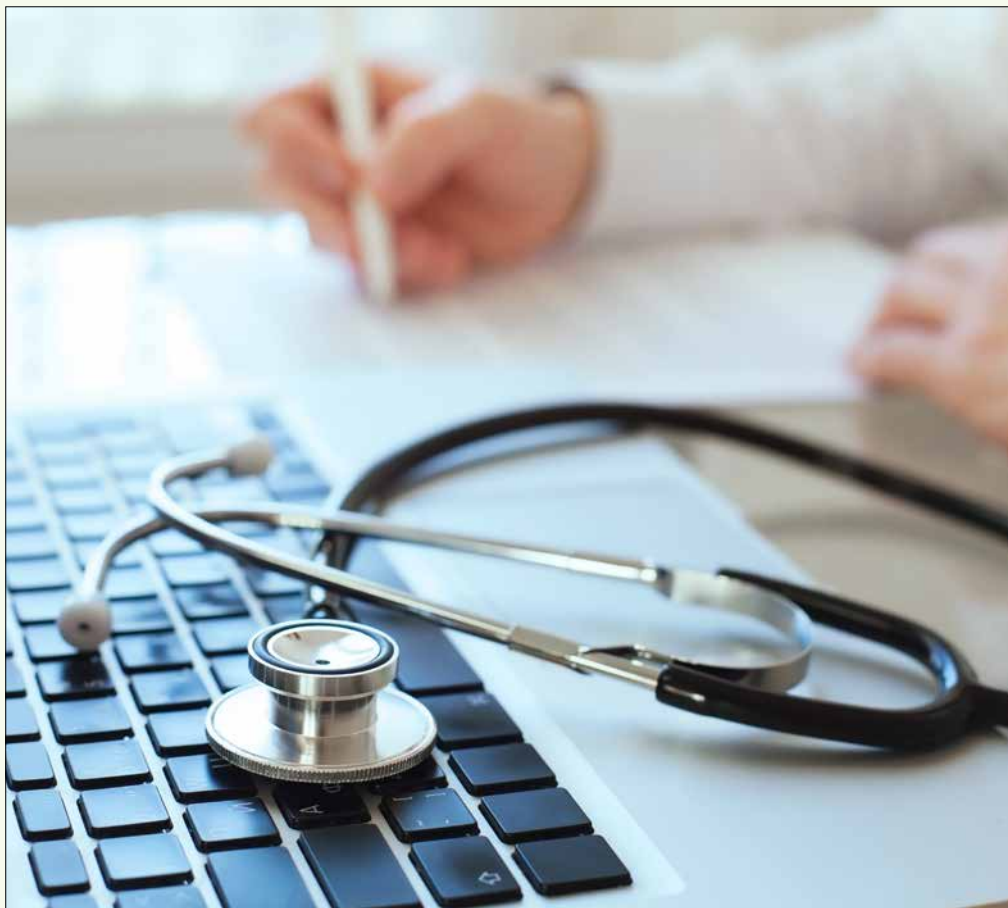
We have developed a survey of thoracic surgery trainees, consultants and units and will incorporate insights into a new set of thoracic surgery standards which aim to support the development of the speciality and reduce regional variation.

We have seen a number of new thoracic surgery consultant posts advertised and are aware of more in the future. This is a good time for our speciality which is growing as a consequence of lung cancer screening, lung volume reduction and is dealing with interesting opportunities such as endobronchial navigation and robotics.

It was a great pleasure to meet again with colleagues at the very successful thoracic surgery forum run by Ira Goldsmith and Malgorzata Kornaszewska in Wales and the annual meeting run by Maninder Kalkat and team in Belfast. It is a reminder that even though we pivoted digitally and flexibly, working in new ways to maintain services even in the professional front, we benefit from the warmth and stimulation of human interaction.

If you need any information on any of the above topics or issues, you are welcome to contact Aman Coonar at aman.coonar@nhs.net.

Thank you. ■



Communications report

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



Communications is very important in any relationship! SCTS values communication with its membership and endeavours to cater to the needs of its members. In the past, we have had communication secretaries whose main role has been the oversight of the Bulletin publication and that post had ceased to exist. Over the years the communication aspect of the SCTS has grown in leaps and bounds.

The website has been given a complete reboot, the Bulletin has evolved to greater heights and in addition, our social media presence has grown steadily.

I was appointed as communication secretary into a rejuvenated post to oversee the various communication strands of the SCTS. In addition, the communications secretary and the sub-committee will help with the SCTS Annual Report, Annual BORS report and Unit Engagement events.

The committee currently has Clinton Lloyd as the website lead, Indu Deglurkar as the Bulletin editor, Vipin Zamvar as Journal lead with the office staff supporting the various roles.

A five-year strategy has been created which was accepted by

the executive although felt it was quite an ambitious project for this period. We have sought expressions of interest from various members to help deliver the communication needs of the SCTS.

Unit engagements, where the senior officers of the organisation communicated with members of individual units, to understand the needs of the membership, will resume. Pre-Covid the senior officers created structured meetings with various units in which consultants, trainees, trust appointed doctors and NAHPs could engage with the senior officers usually including the President, the President-elect, the Honorary secretary and other appointed officers. This

allowed a dialogue to understand the needs of the membership and also to showcase and inform the units of the strategy and actions of the SCTS. Unfortunately, due to Covid, this programme had to stop and we aim to restart this process and engage with units. It also offers an insight into member's strengths and the ability to bring them into various roles of the SCTS. I would urge unit leads to disseminate this with their team members to engage with the senior officers when we meet with the various units.

The website has evolved significantly in the last three years thanks to able leadership of Clinton Lloyd. We would request members to give their valuable feedback and suggestions so that we can improve the website even further, as well as showcase activities delivered by the SCTS and its members.

We are grateful for those of you who took the time out of your busy schedules to

how people overcame challenges will be seen as a motivation to others. Each of our units has a story to tell so please look into your archives and tell us the story of your unit.

SCTS is a constantly evolving society. In the two decades I have been associated with it, it has significantly changed. It has grown in its strength, offered educational opportunities which no other specialty association has offered anywhere else in the world both by the way of free courses in a structured format, as well as fellowships. The committees have expanded and the office bearers now represent the multicultural workforce and membership. It is very sobering to compare the executive of 2012 with the executive of 2022. Social media tags various surgical societies and organisations and challenges them about representation. More often than not we choose not to respond as actions speak

louder than words; what is even better is a picture that speaks 1000 words.

One of the pinnacles of SCTS achievement is excellent educational material offered over a decade in the SCTS Universities. We would like to showcase and convert all the valuable lectures as a **The SCTS Virtual Text**

Book with the various lectures collated and structured with editorials with a view to constantly updating every year.

As an organisation we have always aspired to have our own Journal. Various options have been explored yet we do not have anything official. The first step in that journey is to publish our meeting abstracts in the Journal of Thoracic and Cardiovascular Surgery. We hope to use the journal to publish the SCTS University highlights as a monograph along similar lines to the Perspectives book series.

Communication is a two way process; please let us know how we can do better and we will aim to deliver to your needs. ■

“[The SCTS] has grown in its strength and offered educational opportunities which no other specialty association has offered anywhere else in the world.”

complete the communication survey. The purpose of the survey was to understand the needs of the membership so that we can channel our communications as required. We have definitely reduced the number of emails based on feedback, with the advent of the newsletter last year which gives a lot of information in a single source of communication. We are aiming to bring out a monthly monologue called **From the Chest**, which would showcase the activities, actions and passions of the members as well as the history of the various units. As with the Bulletin, this is not a place for scientific articles but to showcase achievements and shared work/life balance stories. We hope stories of

Training report

Duncan Steele, ST6 Cardiothoracic Surgeon & Senior Cardiothoracic Trainee Representative
Abdul Badran, SCTS trainee representative, Specialist Registrar Cardiothoracic Surgery



After three years of representing trainees in the UK and Ireland our term has come to an end. We've seen some terrible times but also incredible efforts to fix them. Encouragingly, appetite to enter the national training programme has stayed high and our specialty remains the most competitive surgical specialty and competition ratios in the UK, far exceeding ratios in other western countries. Training within the program over the last three years has been exceptionally difficult and some would argue over the last three years, harder than ever before.

COVID has had a, sometimes unbearable, impact on our personal and professional lives and many of the more subtle support mechanisms to support colleagues through challenging life events, have simply not been there. We've witnessed a famine of training case numbers meaning tomorrow's consultant workforce has, at best, struggled to develop their skills at the required rate. Moreover, we've seen a GMC led reduction in training from 8 to 7 years at the same time. With only around 50% of consultant positions in cardiac surgery going to graduates of the UK and Irish training programme, it's hard to see how the impact of these changes will do anything other than make it harder for trainees to remain competitive. Alongside these stresses, bullying, harassment, and undermining issues in departments have come to light. Although some will put these complaints down to colleagues being too sensitive and reference the requirement to be mentally tough and resilient to work in such a high-pressure specialty, the reports we've collected through our survey make for bleak reading.

It is true that some of us will cite experiences of extreme pressure and conflict as what built our ability to perform at the highest level, but the line has been crossed on many occasions and quite frankly unacceptable behaviours do exist. We must

learn as a specialty (and society) how to work with one another, not be soft or accepting of substandard performance and lack of professionalism, ignoring errors or lack of commitment but also not allow the insipid toxic behaviours to be normalised. We cannot pretend conflict will never occur nor should we pretend everyone is going to be in top form at all times. What we need is the correct ethos in our workplace and individually improve our interpersonal skills to allow us to navigate through stormy situations and come out of the other side stronger. Together with SCTS and other stakeholders huge momentum has already been established to both correct the culture and ethos but also support those who suffer from such events.

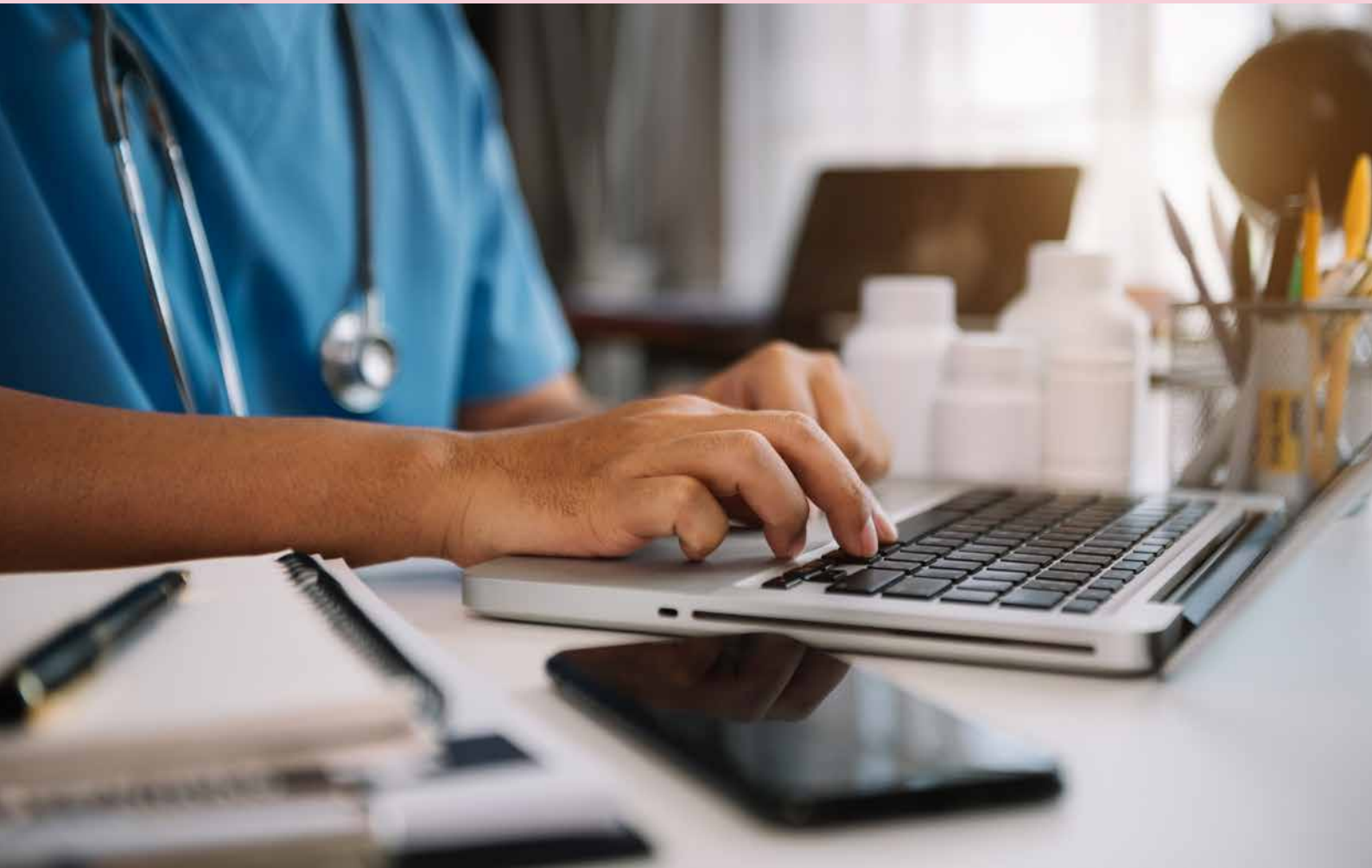
As surgeons and leaders, we need to understand the balance of treating others not how we necessarily want to be treated but how it is most appropriate to. We all know the almost inhumane working conditions of the years gone by in our specialty, but we need to get away from the model of 'I had to do it so they should too'. To allow trainees to progress we should take on points from the SCTS toolkit. Balance is so important in training and it's obvious that trainees spending 50% of their hours holding on call bleeps isn't compatible with the rapid progression required to be a competent surgeon in the new seven year curriculum. We are handcuffed by some restrictions like the European working time directive not to mention the financial pressures on newer trainees. Many now emerge from university with close to 100k debt, have a fraction of the remuneration of 10 years ago in early years and have to pay for courses, conferences and compulsory online portfolios. The fact our research shows that trainees still work on days off to get theatre experience is unsurprising given the professionalism and determination they show, but clearly things

need to change and quickly. The move to a three-day operating week for trainees is doable, but through addressing the balance elsewhere in the rota.

The three years representing our peers has also created some fantastic experiences and notable changes. Although most of our time has been spent navigating negatives thrown at us and our colleagues, our creation of the 'golden heart', 'golden lungs' and 'silver sternum' awards has highlighted remarkable examples of training. All the nominations we received arguably deserved an award in themselves and we were humbled to hear of the length and efforts many trainers go to help their trainees advance. Clearly trainers get huge satisfaction seeing the hard work and time they invest in a trainee flourish and we've seen how so many trainees get far more out of their mentors than simply how to perform an operation.

The first major e-logbook revamp in decades, led by trainees, has helped to update procedures and update its functionality. This will be a continuous dynamic endeavour and evolve with the specialty to facilitate better characterisation of operative experience and learn in real time about the training happening throughout the country. Although covid has restricted gatherings, another trainee led initiative, the weekly online programme, has drawn different centres together in a common cause. It's clear education sessions delivered in this way are here to stay and allow sharing learning opportunities from some of the most renowned in our specialty across the globe.

In summary, the new trainee representatives Bassem and Walid, have a lot to work on but if the exceptional enthusiasm we've seen in our specialty over our three years is anything to go by, cardiothoracic surgery training in the UK and Ireland is only going to get better and better. ■



JCIE Intercollegiate Specialty Board Updates

Sri Rathinam, Chair, Cardiothoracic Examination Board of the JCIE, Consultant Thoracic Surgeon



The recent Joint Committee on Intercollegiate Examinations (JCIE) Intercollegiate Specialty Board exams were conducted in Birmingham in May 2022 with the ‘COVID-format’ of Section 2 exam with patient-based scenarios replacing long and short clinical cases.

A new Section 2 exam will be introduced in October 2022 with the return of volunteers. This new format will recognise increased sub-specialisation within the new curriculum with alternative sub-specialty oral exams in either cardiac or thoracic surgery. There will be no long cases but only intermediate cases.

Changes to Section 2 examinations

There will be changes to the Section 2 exams with volunteers present in the exam and focused orals in the chosen subspecialty.

Revised Section 2 (from October 2022):

Clinical

- a) Cardiac surgery intermediate cases (3 x 15-minute clinicals)
- b) Thoracic surgery intermediate case (3 x 15-minute clinicals)
- c) Cardiac surgery instruments and imaging/investigations (1 x 30-minute clinical)
- d) Thoracic surgery instruments and imaging/investigations (1 x 30-minute clinical)

These stations will include one station with instruments (3 x 5 minutes) and one station with imaging/investigations (3 x 5 minutes).

Oral

- e) Cardiac surgery – Critical Conditions/ICU/Trauma (30 minutes)
- f) Thoracic surgery – Critical Conditions/ICU/Trauma (30 minutes)

Sub Specialty Oral

- g) Sub-specialty oral in Cardiac Surgery or Thoracic Surgery (30 minutes). Each oral examination has 6 x 5-minute topics

With the introduction of a sub-specialty oral exam, there may be a maximum number we can examine in each sub-specialty, in each Section 2 after the success of the Section 1. Candidates who are successful at Section 1 will be allocated a place at the Section 2 exam on a first come, first served basis by the date of receipt of their Section 1 application.

Changes to Candidates not in Training

For all UK/Ireland Examinations from January 2023 there are changes to the eligibility criteria to be able to appear for the Intercollegiate Specialty Examinations. Full Details can be found on the applications page of the JCIE website Candidate Applications: <https://www.jcie.org.uk/content/content.aspx?ID=22>

Joint Surgical Colleges Fellowship Examinations (JCSFE)

Exam activity has restarted for the JCSFE and a number of changes were communicated to the candidates for this overseas exam on 1 June 2022. Full details can be found on the Applications page of the JCSFE website: <https://www.jcie.org.uk/content/content.aspx?ID=22>

Examiner Recruitment:

The JCIE offers an excellent opportunity to keen trainers to be part of the assessment of our training, with setting standards with MCQs, oral questions and of course, examining.

We request consultants who have completed 5 years with an interest in training and assessment to consider applying to become an Examiner for JCIE. Details can be found at the JCIE website at Panel of Examiner Applications: <https://www.jcie.org.uk/content/content.aspx?ID=23>. We welcome newly appointed consultants to contribute the MCQ question writing group, details can be found at Panel of question Writers Application: <https://www.jcie.org.uk/content/content.aspx?ID=41>

Exam board:

The exam board comprises of the Specialty Board Chair, representatives from the four surgical Royal Colleges, two SCTS representatives, the SAC Chair, the two Leads of the Section 1 and Section 2 Question Writing Groups and a Trainee representative. The Specialty Manager for Cardiothoracic Surgery is Mrs Claire Digance-Fisher.

Chair Intercollegiate Specialty Board in Cardiothoracic Surgery

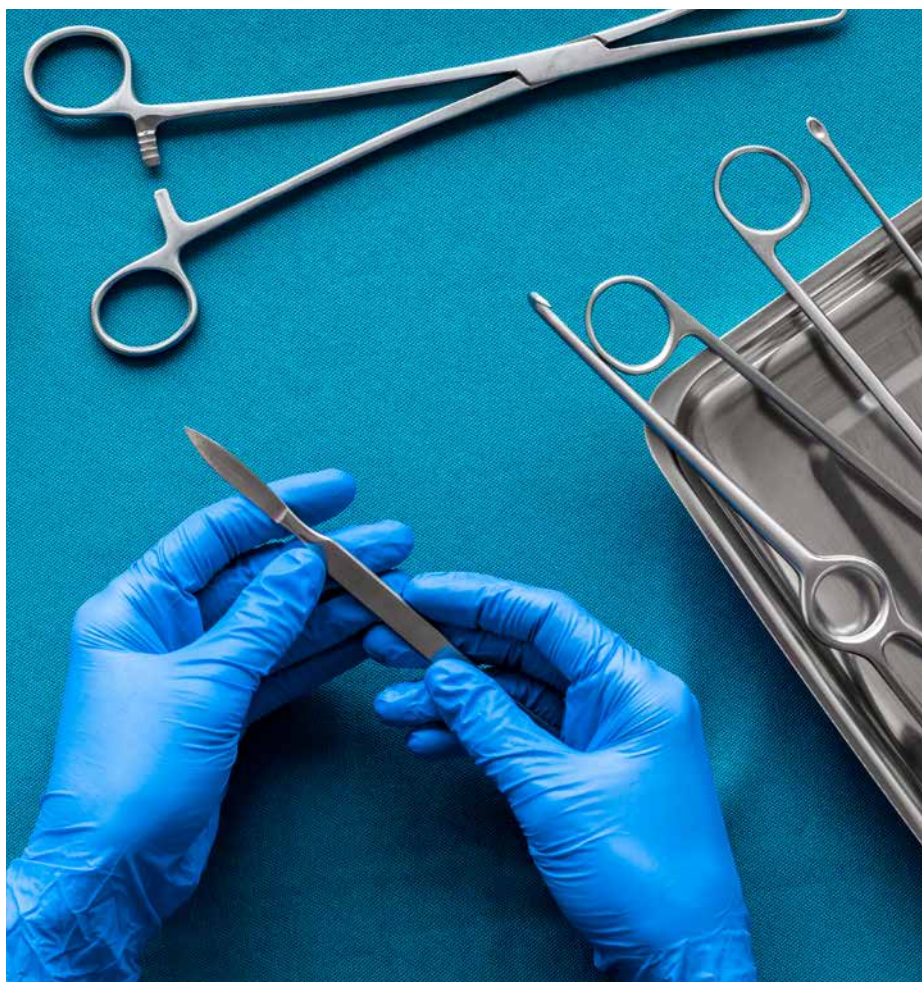
1989-1991	Professor David Wheatley
1992-1995	Mr Barry Ross
1995-1998	Mr Evan Cameron
1998-2001	Mr Alan Faichney
2001-2004	Mr Andrew Murday
2004-2007	Mr Leslie Hamilton
2007-2010	Mr Robert R Jeffrey
2010-2013	Mr E E John Smith
2013-2016	Mr Jon Anderson
2016-2019	Mr Mike Lewis
2019-2022	Mr Rana Sayeed

The chairs of the exam board have contributed to the structure, standards, improvement and quality assurance of the exam board. I hope to work on the success of the past board chairs to steer our exams through the various changes.

Thanks to **Mr Rana Sayeed** who demits office as Chair of the Intercollegiate Specialty Board in Cardiothoracic Surgery for his work over the last three years overseeing the Covid format exams and changing the structure of the exam into the new format to mirror the curriculum change.

We thank **Mr Geoff Tsang** (Representative of the Royal College of Surgeons of Edinburgh), **Mr Clifford Barlow** (IQA Lead & Representative of the Royal College of Physicians and Surgeons of Glasgow), and **Mr Sunil Ohri** (Lead of Oral Question Writing Group) for their contribution to the Exam Board.

We welcome **Mr Manoj Kudavalli** (Royal College of Physicians and Surgeons of Glasgow Representative) and **Mr Stephen Rooney** (Royal College of Surgeons of Edinburgh Representative) who are joining the Exam board. ■



SCTS Transplant Education Lead Report

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



Transplantation and SCTS in Belfast 2022

The SCTS university and the annual meeting in Belfast proved to be a great success. The meeting was a glimpse of what it used to be like a few years ago with the lifting of COVID-19 restrictions. We were delighted by the quantity and the quality of abstracts and keynote lectures. The same was said for the university lectures and abstract presentations relating to transplantation and mechanical circulatory support. Out of twenty accepted transplant related abstracts, seven were presented orally. The rest were categorised as posters and mini oral presentations, where the presenter was given the opportunity to make a brief presentation next to his or her poster and then answered questions from the audience. There was also a fantastic transplant related video entry. Overall, the impression of our members and visitors was that the standards of presentations were quite high.

The transplant programme went according to plan. There were some minor last minute alterations, but we achieved what we set out to do. We were honoured by the presence of my mentor Mr Asif Hasan who opened the first ever session of the SCTS

university on transplantation. There was a small glitch in the programme as Professor Robert Kormos, who was looking forward to joining us in person, could not do so but managed to connect virtually from the Abbott headquarters in Texas. Professor Abbas Ardehali from the Ronald Reagan institute, UCLA, Los Angeles, and Professor Ankit Bharat from North-Western in Chicago attended the sessions in person and provided high-quality content to our audiences (both at the university and the annual meeting). There were in total eight keynote lectures on transplant and related subjects. There was positive feedback on all transplant related aspects of the programme. Our invited speakers expressed that they were “impressed with the enthusiasm of the SCTS organisation team and the close friendly nature of our society members”. They truly enjoyed meeting the UK surgeons.

National transplant training

Transplant training through the national peri CCT fellowship scheme was featured in the education session of the annual meeting as a keynote lecture. I am happy to report that it was well received. I was approached by several delegates at the end of the lecture,

each at different stages in their career from medical students to senior surgical trainees expressing their interest in training in cardiothoracic transplantation. Our invited speakers from the US were interested to learn about UK’s unique peri CCT fellowship training in transplantation. According to an earlier review of our transplant workforce the demand for qualified transplant surgeons will continue. As training in peri CCT fellowship will take a lead time of approximately 18 months, forward planning remains clearly essential.

Transplant course

We are looking forward to restarting the international cadaveric course in cardiothoracic transplantation and mechanical circulatory support at Freeman Institute of Transplantation this September. This is an advanced surgical course with nationally invited faculty. It runs every year in Newcastle, and is organised and run by Professor Stephen Clark. In addition, preparation is on its way to re establish face-to-face wet lab courses for transplant trainees and allied health professionals. This would be led largely by Dr Bhuvaneshwari Krishnamoorthy and Ms Yi Wang at the star training centre, Harefield Hospital.

What next

Moving forward following the success of this year’s SCTS university, transplantation will become a regular feature of the programme. Preparation is already on its way to plan next year’s transplant educational programme for the SCTS university. As last year’s annual meeting was delayed due to COVID restrictions from March to May 2022, please be mindful that next annual meeting in 2023 will soon be readvertised. ■

“We were delighted by the quantity and the quality of abstracts and keynote lectures. The same was said for the university lectures and abstract presentations relating to transplantation and mechanical circulatory support.”

Congenital Cardiac Surgery Education 2018–2022

Attilio Lotto, MD MCh FRCS–CTH, Congenital Educational Lead – SCTS, Consultant Congenital Surgeon, Alder Hey Children’s Hospital, Liverpool



As a subspecialty, Congenital Cardiac Surgery has always triggered curiosity amongst trainees. The diversity and peculiarities of the anatomical and physiological arrangements found in a congenital malformed heart, along with the variety of surgical repairs available to correct or palliate such diseases, generates much intrigue. Nonetheless, not many NTN choose our specialty as a career.

Nearly four years ago I was appointed as Congenital Lead within the Education Committee. At the time, the role description was vague, but with an overall aim of increasing visibility and raising the profile of Congenital Cardiac Surgery amongst trainees.

At that time, I was already participating in the organisation of the congenital component of the ST4A course, which has a half day congenital wetlab

attached. During those courses, I had the privilege to meet our trainees early in their career. While some had already clear career intentions, others were still exploring options, with Congenital Cardiac Surgery one of many ideas. But few were really intending to follow such a career pathway.

Talking to the trainees it was obvious that we, as educators and trainers, were failing to provide a true representation or reflection of our job and speciality, with misrepresentations and myths preventing or discouraging some trainees from entering the specialty. I brought this up at Education Committee meetings, and together with the Congenital Committee co-chair, the SCTS President and the Educational Committee co-chair, we decided that something had to be done to change the perception among trainees and eventually increase the number of them choosing Congenital Cardiac Surgery as a career.

With the help of the Trainees Congenital Rep, we ran a survey among trainees in order to have objective measurements of the problems. A number of common themes emerged like the length and complexity of the training programme, along with the limited availability of jobs at the end. In addition, lack of clarity of the training pathway, and additional concerns relating to the ability to compete with international applicants for a consultant position.

It was coincidental that the new Cardiothoracic Surgery Curriculum has been redesigned, with a now clearer and streamlined line career for trainees interested in congenital surgery.

We have created a network of consultants interested in training and education, involving nearly all the 12 units within Great Britain and Ireland, helping each other with a common educational programme and training.

During the ST4A course, I have decided to add a talk, delivered by a newly appointed consultant, entitled “How to become a congenital cardiac surgeon” which has been well received by trainees with lots of interaction and questions.

With the help of the Education Committee, I have organised and run a course fully dedicated to Congenital Cardiac Surgery. Given the peculiarity of surgical training in our specialty, we recognised that hand-on opportunities are less than in other



specialties, hence the course is a Hands-on course with five 4-hr wetlab sessions during 1 ½ days. The course is free for NTN's and Clinical Fellows working towards a congenital career. The first course was held on 9-10 June, at Ashorne Hill, Leamington Spa, and has seen more than 20 participants, of whom four are NTN's, with six members of faculty from different units. The topic was Surgical treatment of LVOTO, including subaortic and supraortic stenosis, Ross Operation, modified Konno and Rastan operation. We have planned so that every participant will have a chance to perform several operations on animal models guided by senior consultants. Along with the wetlab, we also had the unique feature of having a Morphology station from Birmingham Children Hospital Heart Archive.

We are sure this will be the first of a series of annual courses dedicated to Congenital Cardiac Surgery, and we are

looking forward to implementing next year a programme with 3D printed models, so to expand the congenital pathologies trainees can practice on.

Lastly, I had the privilege of helping during the reshaping of the SCTS website for the Congenital Section. I have added sections relevant to the congenital community, keeping in mind the educational purpose of the website for both professionals and the public. I invite all the trainees to use the website, particularly interesting are the HeartTalks on Demand, and to participate with topic discussions, case reports and highlights from the literature.

In summary, it has been a busy but fully rewarding four years, and I would like to thank the colleagues who helped and supported me in my role, and the SCTS for keeping education a priority for the benefit of the future generation of congenital cardiac surgeons. ■



To heal a broken heart, Team: Towards better professional collaboration

Hisham Sherif, Consultant Cardiac Surgeon (retired), United States



“Une grande responsabilité est la suite inséparable d’un grand pouvoir: With great power, comes a great responsibility” – Voltaire

“A house divided cannot stand” – Abraham Lincoln

“There is no ‘i’ in ‘Team’, but there is one in ‘Win’” – Michael Jordan

Cardiovascular disease (CVD) has the most significant impact on population health worldwide. Each year, it is responsible for the death of around

17.9 million people, and negatively affecting quality of life in about 22.5 million others. These numbers could have been much worse had it not been for the dedicated, highly educated and uniquely skilled professionals; i.e., cardiologists, cardiothoracic surgeons (CTS) and related professionals, who remain committed to the shared goal of improving survival and quality of life for the global population. This time-honoured professional tradition of a shared commitment to a common goal dates back to the early days of modern cardiovascular (CV) medicine: In the 1940s, Doctors Vivien Thomas, Helen Taussig and Alfred Blalock exhibited the first

example of such successful and collegiate professional collaboration to address the high-risk, high-impact problem of cyanotic heart disease.

Thus, cardiologists and CTS, working together to address such important issues, meet the definition of a high-performing interdisciplinary team in a high-risk, high-impact environment. The success of such teams in meeting their objectives, with minimal errors, depends on:

- a) A shared vision for a common goal.
No ulterior motives or hidden agendas.

- b) Trust and “psychological safety”; knowing your team mate ‘has your back’.
- c) Open, honest and constructive communications.
- d) Decision making based on the highest-quality, most reliable scientific evidence.
- e) Accepted leadership who is open to constructive criticism and feedback.
- f) Equal representation for all the diverse stakeholders.

These principles were successfully implemented in the early 2000s, when Transcatheter Endovascular Aortic Repair (TEVAR) was emerging as a new therapeutic modality. At the time, several clinicians clamoured to claim ownership of this procedure (but not postoperative care or the responsibility for adverse outcomes), with an eye for the lucrative financial reimbursement. The potential ‘turf war’ was effectively averted in 2006 and 2010, when all the involved professional organizations (e.g., Cardiology, Interventional Radiology, Cardiothoracic Surgery, Vascular Medicine and Surgery, etc.) formed a Writing Committee with equal representation from each professional body. This resulted in the introduction of the first cross-disciplinary guidelines for the procedure, the operator (including training and skills requirements) as well as the physical facility where such procedures should be performed. In fact, the very concepts of a “Heart Team” or a “Hybrid Operating Room” owe their inception and definitions to those experiences. These well-defined principles proved most beneficial when another novel modality (transcatheter aortic valve implantation) emerged shortly after.

Unfortunately, however, these established principles and practices of teamwork were jeopardized when the latest revision for Clinical Practice Guidelines for coronary artery revascularization were planned, written and issued in December 2021. These new guidelines were drafted almost exclusively by the North American cardiology organizations. In doing so, the following negative effects are at play:

1. A serious failure of communication, of adequate role-definition among team members, and of scientific learning is causing an unprecedented rift between the global cardiology and CTS communities, who have not endorsed the new guidelines.
2. The unilateral actions by the North American cardiology organizations are severely undermining trust between the cardiology and cardiac surgery communities worldwide and – worse – eroding trust in clinical practice guidelines or even public trust in science-based guidance in general.
3. This erosion of trust in the governing organizations is already causing fragmentation of decision-making into numerous, small, local ‘teams’; further exacerbating the disparities in global healthcare quality and delivery and ultimately outcomes.
4. Most dangerously, the long-simmering distrust (bordering on disdain) that non-medical administrators, regulators and payors have for healthcare professionals has almost reached a tipping point: They have long claimed that “individual clinicians are no longer efficient”.

The apparent disagreement between cardiovascular professional teams offers a chance for those administrators to force their own “cost-effective” (read: cheap) policies, regulations and stipulations on clinical communities and the public at large; further eroding clinicians’ autonomy and self-regulation.

In light of these effects, it is imperative that immediate measures be taken to remedy this unfortunate situation. The following measures are based on Max Weber’s principles for successful societal change: Shared purpose, Self-interest, Mutual respect and Honoring tradition; and they include:

- i. Mutual respect and Honouring Tradition: Goodwill measures towards mending fences, rebuilding burnt bridges to re-establish trust among and between all stakeholders. We are all on the same team. We all work together, not for one another. We’re all equally highly educated, knowledgeable and skilled. No one should dictate what the others may or may not do.
- ii. Shared Purpose: Convening a new, independent, international panel of renowned experts with equal representatives from all stakeholders, chosen by their own community/organisation, providing equal input without any conflict of interest.
- iii. This new panel shall be tasked with a new, expedited, in-depth review of all the existing body of scientific evidence; properly stratifying it anew to provide the sound foundation for trustworthy recommendations, applicable to the diverse global cardiovascular community.
- iv. Self-Interest: Presenting a strong, united, supportive front of scientific professionals dedicated to defending their right to self-govern based on consensus of the highest quality evidence, and to resist attempts to meddle with the regulation of their healthcare practice from biased, under-informed non-medical administrators, regulators and politicians who thrive in “divide and rule” environments.

“Cardiologists and CTS, working together to address such important issues, meet the definition of a high-performing interdisciplinary team in a high-risk, high-impact environment.”



SCTS 2022 student team

The Pat Magee INSINC Masterclass 2022 – Educating surgeons of the future

Josh Brown, Medical Student, Queens University, Belfast



The SCTS Student Committee INSINC (Inspiring Students IN Cardiothoracic surgery) could barely contain their excitement ahead of their first face to face Annual Meeting including the Pat Magee Student Engagement Day, this year titled the INSINC Masterclass: Educating Surgeons of the Future.

We kicked off the day in the best way possible; getting hands on and stuck in with a cardiothoracic wetlab. Students were able to have small group teaching at a huge variety of stations, with the aim of going above and beyond the standard introductory wetlab

content. Attendees were shown the principles of surgical valve replacements and the process of pathophysiology in acute aortic dissection using prepared animal tissues. The circuit of stations also included an insight into the practical components of coronary angiography, bronchoscopy, cardiac ablation therapy for atrial fibrillation and were able to see how an ECMO machine works. The last station gave students the opportunity to use a laparoscopic simulator giving them exposure to the intricacies of a VATS operation. There was a competition for who could complete a lap skills challenge with some very impressive times from the student attendees!

After a short break it was time to kick off the main talks of the day with the theme of educating surgeons of the future. We wanted to raise the level of the content beyond previous career's focused student engagement days, giving students exposure to the most prominent and exciting aspects of cardiothoracic surgery. Mr Graham Cooper delivered a brilliant and engaging talk on the management of acute aortic dissection and highlighted the significance of early diagnosis and swift management of this life-threatening emergency.

We were then able to have Mr Nathan Burnside provide our thoracic talk for the day. He discussed the exciting progression in



Demonstration of the Ross Procedure

thoracic surgery to the use of robotic surgery. This was particularly interesting to students, seeing the pinnacle of thoracic surgery with an in-depth discussion into the evidence-based practice supporting robotic surgery and the prospect of this being provided by more centres across the UK.

Our last lecture of the morning was from Mr Nick Chilvers who discussed key aspects of congenital cardiac surgery before encouraging volunteers from the audience to come forward and participate in a role play to show the steps of the

complex Ross procedure. This had all the students highly entertained and proved a brilliant demonstration of an operation that can often be hard to visualise as a student. There were bananas handed out in the place of cardioplegia solution, Christmas hats denoting the valves of the heart (including reindeer antlers as the coronaries) and



Student Portfolio Clinic

sadly a deceased volunteer denoting the cadaveric valve for implantation. This was a fantastic and unique opportunity for students and we hope this can be introduced into teaching other complex concepts within cardiothoracic surgery.

For the first time ever the student committee invited attendees to the 'Portfolio Clinic' where they were able to have one-to-one slots with a cardiothoracic trainee to discuss their achievements thus far and how to maximise their portfolios for future applications. A huge thank you to all the registrars who offered up their precious lunchtime on such a busy day at the Annual Meeting, the feedback from students has been incredibly positive!

We then kicked off our second set of talks which primarily focused on key aspects of applying to national selection for cardiothoracic surgery and what the training would entail. Professor Marjan Jahangiri

gave an invaluable explanation of the current curriculum for cardiothoracic training and highlighted the importance of developing surgical skills early like flawless knot tying and that aspiring cardiothoracic surgeons, like trainees, must ensure

to be constantly up to date with the newest research topics within the specialty.

Something not always discussed at careers events is the considerations you must make on where you want to train. Miss Charlotte Holmes walked the students through region by region offering cardiothoracic training, and highlighted the benefits of particular regions depending on your career goals. We were then able to have Miss Georgia Layton give us a talk discussing her pathway into cardiothoracic training and her top tips on how to be successful at national selection. This is always an invaluable part of the student engagement events and we hope attendees gained as much insight as we on the committee did.

We ended the day in the usual INSINC fashion with the Pat Magee University Challenge hosted by our very own committee lead Ms Karen Booth with her best Jeremy Paxman

impression. The 2022 university challenge was clinched in an epic battle of brains by the team mostly comprised of local Belfast students using their home advantage to seal the win. Thank you to both teams and to the audience who answered the questions too tricky for the players on the day.

Being back to face-to-face events has been incredibly refreshing for both the committee and the attendees. For many students this Annual Meeting was their first in-person surgical conference, let alone their first in-person SCTS event. As part of our committee's goals, we aim to increase exposure and access to medicine as a career and through our widening participation links we were very honoured to have a group of sixth form students attend on the day free of charge and we hope to progress this aspect of our student engagement days in the future. From feedback, students had glowing reviews of the day and we have acknowledged that for future Pat Magee days as part of the annual meeting we will devise a new structure enabling students to see more of the main meeting talks and have a more integrated approach to the student engagement session with the main meeting going forward.



Student Engagement Day wet lab

On behalf of the INSINC committee we want to extend a massive thank you to all of our speakers delivering an engagement day like no other, and to our attendees. We hope you enjoyed yourselves as much as we did, and we look forward to welcoming you again at our next Student Engagement Day in the Autumn. A final thank you to all of the SCTS Annual Meeting organising committee for their continual support of the INSINC committee. ■



University Challenge

Mr. Asif Hasan
Consultant Cardiothoracic Surgeon
E-mail: asif.hasan@nhs.net
Secretary: Frances Bray
Direct line: +44 (0)191 21 38952
E-mail: frances.bray@nhs.net



AH/FMB
30th May 2022

To: isabelle@scts.org
Attn. **Indu Deglukar, Editor Bulletin**

Dear Sirs,

I would like to submit the following article for the “candid view” slot.

“Sister, Could you ask Mr. Hasan to go to the Porter’s Lodge and remain there until he is called back.”

My misdemeanour was to open the chest in the wrong intercostal space.

Did I feel insulted at being ushered out of theatre in ignominy?

Did I feel belittled to be addressed in third person?

Did I feel bullied?

The answers to all of those would have been in the affirmative.

As I sat listening to Simon Kendall’s excellent talk at the plenary meeting of SCTS 2022, I delved deep into my psyche and realised that I had no feeling or sense of any residual trauma. The incident had instead become an amusing anecdote with which to regale my trainees.

Time chooses whether to leave a teasing memory or a deeper scar. A datix, a complaint to TPD, a period of gardening leave or even a GMC referral might not have left it as just an amusing incident 35 years later.

Regards,
Asif Hasan

RE: Attn. Indu Deglukar, Editor Bulletin



Dear Asif,

Thank you for your letter and your kind words about the AGM. It was good to see you there and be able to catch up.

Your anecdote from your own training is striking and it is good to know such an experience didn’t impede your progression to such an outstanding career in congenital surgery.

What we don’t know is when such experiences can significantly upset and impede a colleague’s performance and progression. Our background, our seniority, our confidence and our competence all give us different levels of tolerance to bullying, harassment and undermining.

With that in mind SCTS is promoting our specialty to adopt behaviours that provide a safe and supportive environment for all members of the surgical team. Not easy though for a specialty that has been ‘brought up’ in a very different culture.

Yours gratefully,
Simon

Look after your colleagues

Sometimes all it takes is a
conversation



Stress
Burnout
Anxiety

SCTS Fourth National Research Meeting 2021



Akshay Patel, NTN Trainee, Queen Elizabeth Hospital, Birmingham

This year, in the ongoing aftermath of the COVID-19 pandemic, saw the reconfiguration of the National Research Meeting to a virtual platform for the second year running. On the 5th of November, the 4th instalment of our society's research meeting took place via zoom. This meeting was hosted with the support of the academic thoracic surgery division at the Royal Brompton Hospital, the members of the SCTS Research Subcommittee, the Cardiothoracic Interdisciplinary Research Network (CIRN) and the wider membership of the society. In order to cater to the needs of our society's members, surveys were sent out through the SCTS membership and the NAHP forum asking what was "wanted and needed" from this year's national research meeting to make it as impactful and useful to all those who attend. We collated all the feedback from all disciplines under the cardiothoracic umbrella and designed the meeting in line with what the participants fed back to us.

The meeting was introduced by Professor Eric Lim and Professor Mahmoud Loubani, with a clear emphasis on the need for good quality research activity to enable our speciality to go from strength to strength.

Each sub-speciality hosted truly inspirational plenary talks from world leading academics in their respective fields. In cardiac surgery, Professor John Pepper from Imperial College London provided an insight into life as an academic cardiac surgeon as well as the joys and sorrows of conducting clinical trials. Professor Tom Karl, a congenital cardiac surgeon from Florida delivered a highly informative talk on how to successfully publish meaningful good quality research, a topic he is no doubt an expert on through his role as Associate Editor of the *European Journal of Cardiothoracic Surgery*. Professor Shaf Keshavjee, Director

of Lung Transplantation at UHN Toronto and President Elect of the American Association of Thoracic Surgery delivered the thoracic plenary talk. A true giant in the field, he inspired us with his journey from surgical resident through the surgeon-scientist programme at the University of Toronto towards becoming a world leader in the field of Lung Transplantation and Transplant Physiology. Lastly, but by no means least, Professor Galina Velikova, a medical oncologist and esteemed academic at the University of Leeds discussed her hugely influential and highly-cited quality of life sub-studies of national and international clinical trials in breast cancer as well as the routine measurement of patient-reported outcomes and quality of life in oncology practice. All talks were incredibly well received and sparked a high amount of intellectual discussion.

The abstract presentation sessions were divided into a general cardiac, general thoracic and a mixed congenital/transplant/NAHP session. Each presentation was 7 minutes which was followed by 5 minutes of engaging debate and Q&A, hosted by the enthusiastic moderators: Professor Mahmoud Loubani, Mr Enoch Akowuah, Mr Nigel Drury, Professor Eric Lim and Mr Babu Naidu. The final session for the day was focused on career development and was centred on two excellent talks. Firstly, Dr Aina Pons from the academic division of thoracic surgery at the Royal Brompton Hospital gave an overview of the National Thoracic Surgery Research Improvement Initiative (NTRII); a weekly think-tank session spear-headed by Professor Eric Lim which provides research support and knowledge to all those wishing to embark on a research project right from idea conception to delivery and publication. The final talk of the day was delivered by

Mr Aneel Bhangu, a real "tour-de-force" in the GlobalSurg Collaborative and founder of the COVIDSurg collaborative which yielded multiple 4-star papers providing insight and knowledge around the management of our surgical patients during the COVID-19 pandemic. This lecture emphasised that the key to research success is collaboration and resilience.

This meeting culminated in the award of three prizes (one in each session). These were awarded to Dr Francesca Gatta for "Redo Aortic Valve Replacement versus valve-in-valve Trans-catheter Aortic Valve Implantation: A National Propensity Score Analysis"; Sophia Sheikh for "Single-cell sequencing to investigate metabolic stress in the pathology of organ injury following cardiac surgery"; and Dr Savannah Gysling for "The impact of the COVID-19 pandemic on Non-Small Cell Lung Cancer (NSCLC) Incidence in England".

This meeting would not have been possible without the unrelenting support and hard work of the organising committee; Dr Aina Pons, Mr Edward Caruana, Mr Akshay Patel, Mr Usman Haroon and Professors Eric Lim and Mahmoud Loubani for their unyielding support throughout the process. The feedback received for this meeting has been excellent from both participants and faculty alike.

This meeting has once again highlighted the impact of good-quality research, the importance of networking and collaborating between researchers and it provides an excellent platform for trainees and healthcare professionals to get involved in good quality research. We hope next year's meeting will be in person and will serve to boost the reputation of the society, the profile of this meeting and attract speakers, whether it be delegates, plenaries or faculty, from far and wide. ■



IT'S TIME FOR CHANGE

Developed by world-renowned Surgeons and created by highly skilled Craftsmen to bring you outstanding quality and innovative surgical instruments for Cardiovascular, Vascular, Micro, Thoracic, Neuro and Ophthalmic surgeries at a cost-efficient price point.



60 DAY TRIAL



5 YEAR MAINTAINENCE



15 YEAR WARRANTY



BROUGHT TO YOU BY



Paul Skinner
Territory Manager at Cardiac Services
Email: p-skinner@cardiac-services.com
Tel: +44 01625 878999
Web: Cardiac-services.co.uk

Jeremy Colville
Business Unit Manager at Tekno Surgical
Email: jeremycolville@tekno-surgical.com
Tel: +353 1 675 4800

Gruber's "Pneunonectomy Tunic"

Keyvan Moghissi, Consultant Cardiothoracic Surgeon (retired), Yorkshire



Few people in the UK are familiar with the works of Alfred Gruber, an Austrian born sculptor who not only crossed the European country boundaries to settle in East Yorkshire, but also tried to enter the artistic "Metaverse" both in terms of experimental art and symbolism. In 1971 I had the privilege of having this famous and talented man as a patient.

Figure 1: Gruber's Pneumonectomy Tunic



By pure coincidence I learnt that he, through marriage, was related to Professor Erwin Rutishauser. Rutis, as he was known amongst students, was a genius teacher in pathological anatomy; one of my mentors as a medical student and the start of my post graduate studies. He was and remains a true legend in the faculty of Medicine at the University of Geneva. In April 1971 Gruber was diagnosed as having a non small cell lung cancer. All investigations indicated that the tumour, though extensive, was localized in his right lung and was operable.

In May 1971 I carried out a right pneumonectomy with curative intent; the immediate recovery was uneventful but, unfortunately and unexpectedly, by the end of 1971 there were indications of cancer spread and he required hospitalisation for palliative care. In the 1970s most thoracic surgery units in this country had 2-3 beds earmarked for terminal/palliative care, managed by the surgical team with advice from the Chemo-Radiotherapy consultant.

Gruber stayed a week or ten days in hospital and thus I could frequently see him as a friend and doctor. Every evening I visited and talked to him about art and our favorite composer, J.S Bach. Gruber was knowledgeable about the anatomy of the chest and often asked about the long term effects of his operation. Sadly he passed away in February 1972.

Gruber had a number of exhibitions in the UK and some European countries, both solo or jointly with his wife Jacqueline Gruber Stieger - a sculptor and artist in her own right*. As a token of our friendship I have in my possession a gift of Gruber's sculpture, "The Horse of Beverley" basically a head of a horse in bronze. Over the years, a distinctive characteristic of his art and one particular sculpture of his attracted me to include him in my memoir.

Gruber's approach to sculpture appears to be influenced by Leonardo Da Vinci, a mixture of innovation and surrealism, of engineering and art. The true magnet for me to write about Gruber is a unique piece of Sculpture – in Relief, which has puzzled many. I first saw this work only recently, 50 years after his premature death, when I was invited to visit and view his art in an exhibition in Beverley Art Gallery**.

Figs 1 and 2 show pictures of Sculpture – in Relief which is cast in Bronze.

Gruber named the piece "Shirt" but subsequently gave the work the title, "Chancellor Brandt Won't Wear It". I have coined another name, "Grubers Pneumonectomy Tunic" for the following reasons:

- At first sight the tunic is a jacket of a very high ranking 3 star - Nazi German uniform (rank: Obert) in which all insignia of the rank and ceremonial ornament are

visible on only one side (Fig 1). Then there are four open balls, two of which on the right are different than the two on the left (Fig 2).

- Looking at the sculpture with eyes of a Cardio Thoracic Surgeon and on closer study, one can observe that the right chest is flatter and smaller in proportion than the left.

We know that the pneumonectomy side of the thorax, after years, generally becomes flatter with less volume than the contralateral side.

I am confident that, through conversations with me, with his inquisitive mind, Gruber knew this too.

- The left side of the Tunic has medals, epaulette, aiguillette and other ornaments and insignia of a high ranking Nazi German WWII officer. But the right side of the tunic has none.
- In particular the aiguillette normally hangs from right epaulette. In this sculpture it actually hangs from the left epaulette.

- Two of the appendages on the right side - on magnification - appear to show the heart opened in half with a septum division of the two sides of the heart; the second appendage hanging from the right, on magnification resembles a trachea and its division to main bronchi.
- However, on the left side, the appendages are like the inside of a pomegranate.

I believe the artist is trying to convey that the loss of one lung alters your anatomy and results in a kind of disfigurement together with the loss of many attributes, in this piece exemplified by the loss of 3 star epaulette i.e. loss of rank and ‘change of heart and attitude to life?’

The body and mind can adapt and rehabilitate, as shown by the fact that the 3 stars and aiguillette in this case are clearly seen hanging from the left shoulder. But basically you can still survive and be whatever you were before the loss, in this case an officer in rank and thoughts. ■



Figure 2: Gruber's Pneumonectomy Tunic with Appendages

Acknowledgements

I am grateful to Dr Gerardine Mulcahy-Parker, art historian and Mrs Jacqueline Gruber-Stieger, for their assistance in preparation of this article

*Mrs Jacqueline Gruber-Stieger has allowed me to disclose the short medical history of The Sculptor husband

**Beverley is a market, minster town and Civil Parish in East Riding of Yorkshire. The exhibition is called: 'Crossing Borders from the Danube to the Humber: Alfred Gruber and Friends', Beverley Art Gallery, 9 April to 2 July 2022



“Cardiac Surgery”

An exposed chest, my racing heart
My first encounter of this art
At seventeen, I first saw it
At twenty-one, I then felt it

A beating heart in my palm
How on earth was I so calm
Rapt eyes on the luscious organ
Invigorating in its élan

Holding it made me feel not powerful
Neither great nor awful
But instead this reminded me
Of my own mortality

The cardiac surgeon's prerogative
Can be thought of as pejorative
But has anybody truly understood
The risks they take for the greater good

For the patient who was affected deeply
Of chest pain, to finally be free
To live a healthy life, a new person
Blessed with revascularization

Such is the beauty
Of this specialty
A real oeuvre
A true love

Najeeba Lallmahomed,
Foundation Year Doctor,
Morrison Hospital,
Swansea



AD 2032: The Landscape for Aortic Dissection in 10 Years Time

Graham Cooper, Trustee, The Aortic Dissection Charitable Trust
Catherine Fowler, Trustee, The Aortic Dissection Charitable Trust



At the SCTS University in Belfast, The Aortic Dissection Charitable Trust looked to the future, describing the landscape for aortic dissection that patients, families and the healthcare profession would like to see in 10 years time.

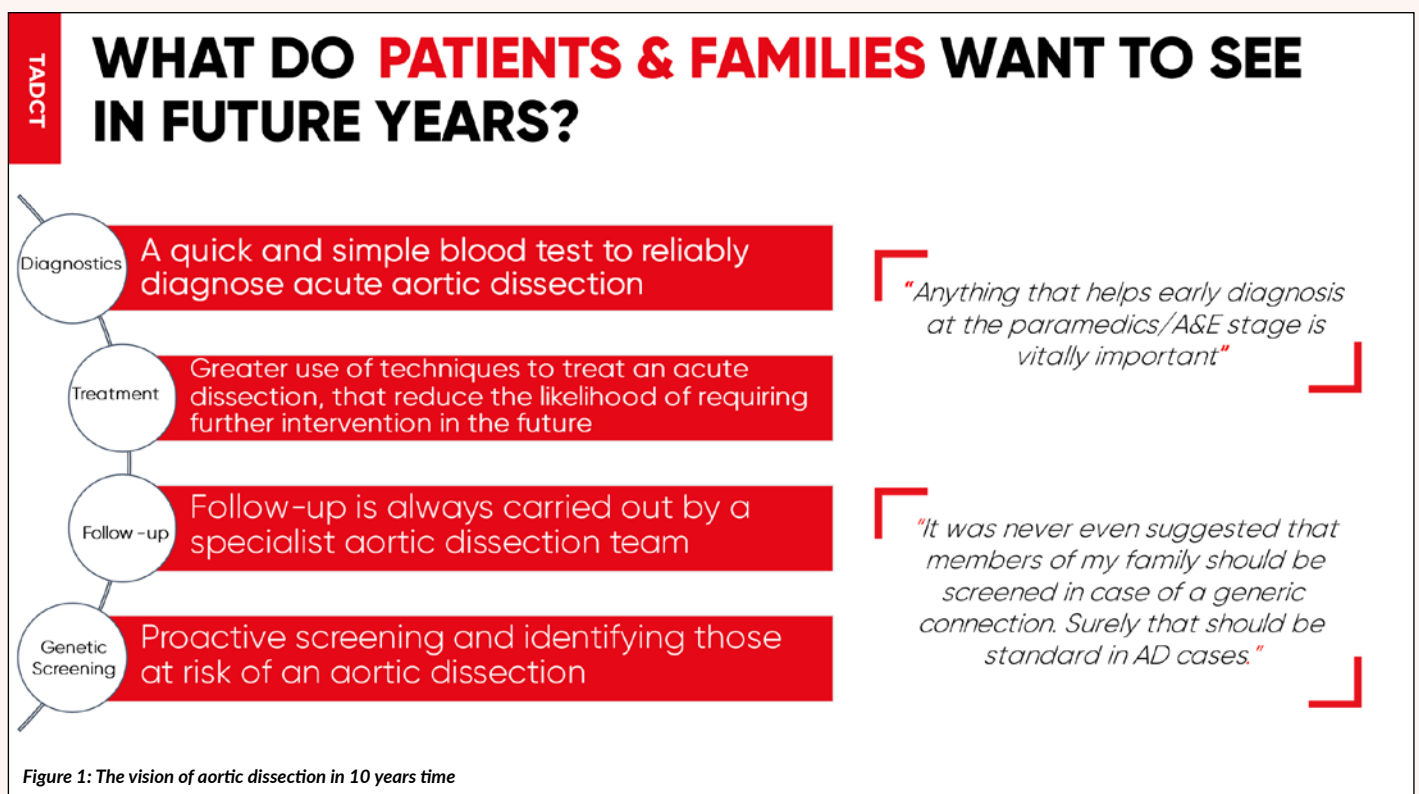
The number of patients suffering an acute aortic dissection is predicted to increase from around 4000 in 2020 to almost 7000 in 2050¹. Without improvements in diagnosis, treatment and prevention the number dying

from the condition will almost double. Against this background and informed by a survey of our Research Panel (figure 1) key subject matter experts described their vision for aortic dissection in 10 years time.

The session was opened by Steve Perryman MBE who, in conversation with his surgeon Clinton Lloyd, described how the Devon Air ambulance saved his life when he suffered a type A dissection in 2012 (figure 2). The Devon Air Ambulance was established

by a forward looking mother who recognised, following the tragic death of her child, that faster transport of casualties was required to save lives in the future.

The greatest opportunity to reduce deaths from aortic dissection is prevention. Half of those suffering a type A dissection die before reaching hospital. Dianna Milewicz described how advances in genetic screening could lead to increased prophylactic surgery for those at high risk of aortic dissection.





The Aortic Dissection Charitable Trust aims to improve the diagnosis of aortic dissection and bring consistency of treatment across the whole patient pathway.

We accomplish this through:

- Increased access to education for healthcare professionals and those affected by aortic dissection.
- Influencing healthcare policy to bring consistency across the whole patient pathway.
- Promoting research into the detection, prevention and treatment of aortic dissection.

In our first year we have:

- Designed and delivered over 20 education events reaching in excess of 2000 people including healthcare professionals from many backgrounds and coroners.
- Worked with The Primary Care Cardiovascular Society to produce a Field Guide on aortic dissection for Primary Care.
- Supported the development and implementation of NHS England's Toolkit for Acute Aortic Dissection.
- Created our Research Advisory Group, comprised of 4 medical researchers' Colin Bicknell, Julie Sanders, Aung Oo, Mark Field, 2 patients and 2 relatives. They are supported by a Research Panel of over 250 patients, relatives and healthcare professionals. Through this, we are supporting 8 research projects and have released our first research grants to be released in September.
- Obtained an undertaking from the Prime Minister to increase funding into research into diagnosis of acute aortic dissection and genetic screening for the condition.

Take a look at our website for more news and educational materials, including our unique resource for patients and relatives, Living with Aortic Dissection. This free patient-centred resource answers the questions most asked by aortic patients and their families. TADCT ambassador, Bob Harris OBE chats candidly with other aortic patients about how the condition has impacted them. Along with medical advice from Dr Bejal Pandya of Barts Heart Centre London, they discuss the complexities of the condition and the impact physically and emotionally.

www.tadct.org @AorticDissectCT

Figure 2: The Aortic Dissection Charitable Trust Lunchbox Session



AD 2022 - The Landscape for Aortic Dissection

Sunday 8th May at 12.30pm in Hall 2A

Presentations and expert panel examination of the future of aortic care.
With current analysis and future aspirations for genetic screening, surgical intervention and the future aortic multidisciplinary team.


CATHERINE FOWLER
Trustee of The Aortic Dissection Charitable Trust


CLINTON LLOYD
Consultant Cardiac Surgeon at Donkford Hospital


STEVE PERRYMAN MBE
Charity ambassador & former professional footballer


DIANNA MILEWICZ
Leading clinical geneticist at The University of Texas Health Science Center of Houston


AUNG OO
Consultant Cardiac Surgeon & Clinical Lead for Aortic/aortic surgery at St Barns


DEBORAH HARRINGTON
Consultant Cardiac & Aortic Surgeon at Liverpool Heart and Chest Hospital

#SCTS2022 #AortaEd

Aung Oo looked at how improvements in surgical and interventional radiological techniques would lead to less invasive interventions and how initial interventions would reduce the need for further intervention in the future.

With increased numbers suffering aortic dissection and increased long-term management by specialist aortic teams, the nature of these teams will need to develop. Debbie Harrington presented her vision of the make-up of these teams.

We are grateful to our speakers, and to Jorge Mascaro for co-chairing the session, for setting a vision to shape a safer future for those affected by aortic dissection.

The recording of the Lunchbox session is available at https://sites.shocklogic.com/SCTS/SCTS2022/on-demand/?session_id=1094 ■

Acknowledgement

The Aortic Dissection Charitable Trust Lunchbox Session was sponsored by Terumo Aortic.

Reference

- 1) Howard P, Banerjee A, Fairhead J et al. Population-Based Study of Incidence and Outcome of Acute Aortic Dissection and Premorbid Risk Factor Control 10-Year Results From the Oxford Vascular Study. *Circulation*. 2013;127:2031-2037.

High demand for Aortic Dissection: The Patient Guide at the SCTS annual meeting

Christina Bannister, Nurse Case Manager, Southampton General Hospital



By kind invitation of SCTS President Mr Simon Kendall, a team of patients from the national patient charity **Aortic Dissection Awareness UK & Ireland** attended the SCTS Annual Meeting in Belfast and launched their new book, **Aortic Dissection: The Patient Guide**. This 96-page, A5 handbook, written by patients for patients and endorsed by SCTS, was hailed as a ‘game-changer’ in patient care by senior cardiac surgeons attending.

The AD Awareness UK & Ireland stand in the Exhibition Hall was very busy with delegates interested in the launch of the

Patient Guide. SCTS members who treat Aortic Dissection patients were delighted to be given a personal copy, signed by a patient. One medical student who visited the stand said that she learnt more about Aortic Dissection in the first ten minutes of speaking to the patient team than she had in any of her lectures at university.

Vice-Chair of the national patient charity, Mrs Haleema Saadia, explains: “Since the inception of our patient-led organization in 2016, we have campaigned to raise awareness of Aortic Dissection and to improve Aortic services for patients. As more patients survive an Aortic Dissection, one of

their main concerns is how little information is available to help them understand the condition, manage their recovery and manage the life-long implications of being an Aortic Dissection survivor. As the national patient charity for Aortic Dissection, our first major charitable act is a commitment to provide free copies of the Patient Guide to every UK and Ireland Aortic centre for their patients, in perpetuity. Our aim, in partnership with SCTS and The Vascular Society, is that by the end of 2022, every Aortic Dissection patient will receive a copy of the Guide before they leave hospital.”

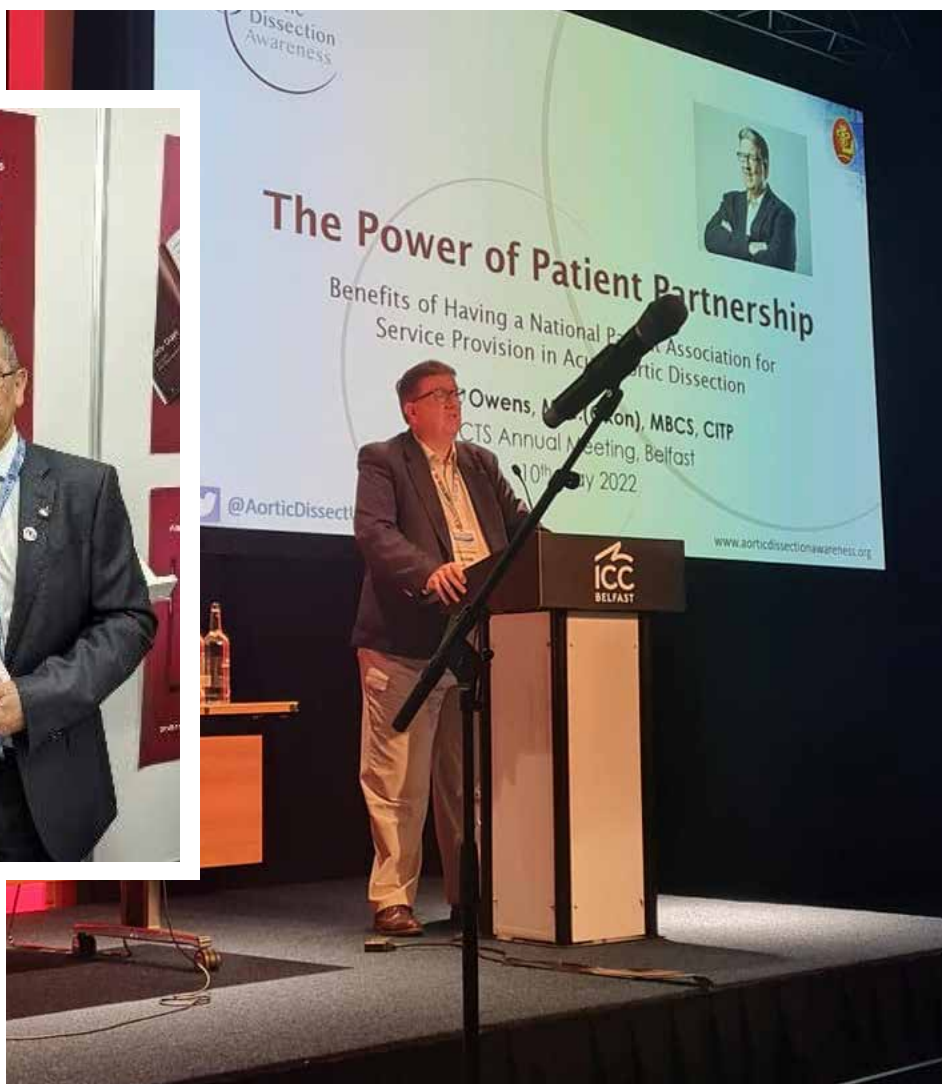
During the SCTS Annual Meeting in Belfast, 21 units placed orders for a total of 1200 copies of Aortic Dissection: The Patient Guide. There is an online order form on the charity’s website www.aorticdissectionawareness.org for Aortic centres that have yet to order a free stock for their patients. Any centre in the UK & Ireland which treats Aortic Dissection patients can place an order and receive a free stock within 2-3 weeks via the charity’s distribution partner, Terumo Aortic. The Patient Guide can also be downloaded as a free PDF from the charity’s website. During the month of May, there were over 1300 downloads. The patient charity also received inquiries about the possibility of using the Guide from clinicians in the USA, Canada, Australia, the Middle East, Turkey and China.

Mr Gareth Owens, an AD survivor and Chair of the patient charity, gave an inspiring talk in the Aortic Dissection session of the main conference on Tuesday about the benefits of having a national patient charity for Aortic Dissection to the provision of Aortic services. He cited Aortic Dissection:



Chair of the national patient charity Mr Gareth Owens, a Barts patient & AD survivor, presents a signed copy of the Patient Guide to SCTS member Miss Ana Lopez-Marco, who was a key clinical reviewer of the Patient Guide on behalf of the Barts Aortic surgery team

AD survivor Mrs Haleema Saadia presents a signed copy of *Aortic Dissection: The Patient Guide to SCTS* member Mr Jorge Mascaro, the surgeon who saved her and her baby's life

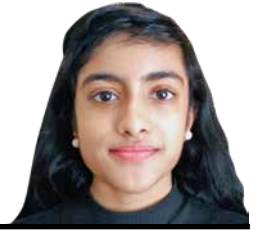


The Patient Guide and the charity's highly-successful **THINK AORTA** campaign as just two examples of 'the power of patient partnership'. Mr Owens thanked SCTS for the Society's support and friendship towards the patient charity from its inception, six years ago. He also announced that the charity's 7th annual Aortic Dissection Awareness Day UK, hosted this year by UCL, will be held at the British Medical Association in London. The theme of the day will be 'Engineering the Future of Aortic Surgery' and Prof Aung Oo from Barts Heart Centre will set out his vision for the future of Aortic surgery, as the keynote speaker. Full details of the event programme and how to register are available on the charity's website. Mr Owens highlighted how far the national patient charity has come with the support of partners like SCTS and said that he and his team are very excited that 2022 is the year that Aortic Dissection Awareness comes to the BMA. ■



The AD Awareness patient team launching their new book *Aortic Dissection: The Patient Guide* at the SCTS Annual Meeting

Challenges in Cardiac Surgery



India Premjithlal Bhaskaran, SCTS School Student Ambassador, Kew House School

Cardiac surgery is confronted with numerous challenges. Today's forces are similar to those that have influenced vascular surgeons 10 years ago. Cardiologists and vascular surgeons have created catheter-based skillsets for treating cardiovascular illness using less invasive methods. Cardiologists are at a fork in the road, and many are learning these minimally invasive procedures.

Uniqueness such as decreased referrals for surgical coronary revascularisation, increased referrals for valvular disease, diminished interest in cardiac surgery among medical students, general surgical trainees, the predicted shortage of cardiac surgeons, where the ageing population with cardiovascular disease remains a major cause of death. The development of new technologies will determine the future of cardiac surgery. Each of these factors will be further studied.

The number of patients referred for coronary artery bypass grafting (CABG) dropped in recent years, due to advanced catheterization techniques, advances in stent technology and aggressive percutaneous procedures such as stenting triple-vessel disease, left main disease and bifurcating lesions, early medical management and improved lifestyle.

General thoracic operations, including lobectomies and pneumonectomies, have increased more than in the previous decade. To date, no stent has even approached the long-term patency rates that the internal mammary artery provides. On the contrary, there have been suggestions of an increase in the need for CABG soon, as there appears to be a natural progression of disease in stented patients. Improved valve prosthesis and more aggressive and successful valve repairs have benefited valve surgery.

Not only is a substantial section of the senior population (65 years and older) becoming older, but life expectancy is also increasing. Cardiac illness continues to be the major cause of death in people of all races and genders. Despite increased survival rates from heart disorders, a scarcity

of cardiovascular specialists is projected as the population ages. In cardiac surgery, an estimated 54 per cent of the existing workforce is likely to retire in the next 12 years due to an ageing workforce.

While interest in general surgery appears to be constant, interest in cardiac surgery has decreased. Significant labour hours, limited income and poor job prospects are likely reasons for this lack of enthusiasm for cardiac surgery. According to physician surveys, cardiac surgeons work an average of more than 60 hours every week. Younger cardiac surgeons, for example, may work up to 84 hours per week. According to a recent poll of graduates from accredited cardiac surgery programmes, obtaining a suitable job placement is tough. Finally, our current training system requires extensive training in all surgical subspecialties, including cardiac surgery. More than any other speciality, cardiac surgery requires more years to finish training. As a result of the issues, interest in cardiac surgery has dwindled.

CABG has improved in several ways, including conduit selection, cardioplegia procedures and cardiopulmonary bypass, allowing critically sick patients to undergo the procedure successfully. Cardiac surgeons have reduced their involvement in vascular surgery and have stopped implanting pacemakers within the same period. Percutaneous coronary intervention (PCI) has been rendered safe by interventional cardiologists, with favourable mid-term results. Cardiac surgeons have had to create alternate, less invasive techniques as a result of developments in the management of patients with coronary disease.

Aortic aneurysm treatment has progressed, with heart surgeons learning to treat them with less intrusive techniques. Endovascular thoracic aortic aneurysm repair has been shown to have a decreased complication rate while providing comparable mid-term results to open treatment. The ascending aorta has also been successfully treated with endovascular repair, although being more technically difficult. The delivery device's length and the left ventricular ejection fraction during deployment are all limitations,

as is the tight margin for error between the coronary and innominate arteries. Due to a lack of training centres, cardiac surgeons have been slower to embrace endovascular methods than vascular surgeons. Due to the great-vessel branches, there are still technical restrictions on endovascular treatment of the aortic arch.

The treatment of heart failure is an area of cardiac surgery that has a potential for major growth. Due to a scarcity of organ donors, the number of patients having heart transplantation has only slightly grown. Initially, left ventricular assist devices were designed as a bridge-to-transplant device to provide patients some time until a suitable donor became available.

Robotic heart surgery has sparked a lot of interest in both the medical community and the public. Three-dimensional vision, a larger selection of instruments and a greater range of motion are just a few of the recent advancements in technology. When compared to traditional techniques, improved visualisation, less pain, and improved patient satisfaction are among the advantages. At the moment, this method has various drawbacks, including patient selection based on body size and habit, difficulties educating surgeons, long cardiopulmonary bypass and cross-clamp intervals. Nonetheless, this is an intriguing element of cardiac surgery that will likely continue to evolve as technology improves.

Cardiac surgery is influenced by several different factors. Given the ageing population and waning interest in the subject, it is expected that there will be a substantial manpower shortage. In the same way, cardiac surgeons must grasp specific disease processes like coronary artery disease, valve disease, aneurysmal disease and arrhythmias. With focused time to master robotic surgery, catheter-based skills and imaging skills, the programme will continue to grow. Cardiac surgery is still a gratifying and fulfilling career that is constantly changing to meet the requirements of the public. New developments in technology have welcomed possibilities of advancement, meaning there is a bright future, however, it will be very different from the past. ■

Kids allowed? Kids allowed!

The next generation at the SCTS annual meeting

Annemarie Brunswicker, ST6 Cardiothoracic Surgery, Wythenshawe Hospital, Manchester



#Ilooklikeasurgeon: a smiling baby, a content professional mother.



This photo did the rounds on social media as a showcase for the progress made towards inclusion of mothers in surgery. It was taken at the 2018 SCTS annual meeting in Glasgow. My husband was unfortunately on-call and I had no other childcare available, leaving no option other than to take my daughter along. We were met with many friendly smiles, encouraging comments and colleagues going out of their way to help. But the reality was far from joyous – navigating the conference with a young child was an extremely stressful event.

Miriam, my then 9-month old daughter, required multiple sugary and shiny bribes to prevent her from making too much noise during the scientific sessions. There were no safe spaces for her to roam or test her

newly acquired crawling skills, so I ended up carrying the 10kg child in the baby sling most of the day. The only baby-changing facilities were at the other end of the conference venue and the keys were only available from the staff. This made a seemingly simple activity an odyssey. This pattern was repeated in 2019, when I took the then 2-year old to teach at the Ionescu University wetlab session at the SCTS annual meeting in London. Whilst everyone was happy to see her, entertaining a strong-willed toddler was challenging, and the face paintings she designed on herself using black marker pen did not particularly fulfil the learning objectives of the bronchoscopy session I was teaching.



Clearly, I am not the first parent to suffer from the conference-childcare conundrum. Parents of dependent children often face difficulties in fully attending conference activities due to childcare demands. Mothers generally experience greater disadvantages, often referred to as the “baby penalty”.

When this occurs during their otherwise most productive years, it is detrimental not only to their career, but to the wider professional communities they belong to. In order for caregivers to meaningfully contribute and benefit from conferences, structural and cultural changes need to occur.

Thankfully, conference organisers are starting to recognise and address this conundrum. We went as a family to the Critical Care Reviews Meeting at the Titanic Museum in 2020. It offered a well-staffed on-site nursery and a breastfeeding/parent room with live-streaming of conference talks. Organisers invited children to attend any talks with their parents if they wished to and welcomed breastfeeding. At the end of the day, we enjoyed exploring the museum as a family. The Association of Surgeons in Training (ASiT) arranged similar childcare facilities with the option of an out-of-hours babysitting service. Peer-support groups are advocating for child-friendly conference setups. This must continue to improve and feature in future professional conferences.

In stark contrast to my experience in 2018, the 2022 SCTS annual meeting in Belfast was exemplary in making every effort to address the conference-childcare conundrum. My two daughters attended the on-site creche along with children of other delegates. They made friends, played and enjoyed themselves. This allowed us parents to engage with conference content and networking, instead of entertaining children. My husband was able to attend the conference as a backup, in case our youngest daughter would not tolerate the unfamiliar creche environment. Such an arrangement is useful for those with younger infants who require regular breastfeeding.

Social events are often scheduled in the evening, presenting a childcare challenge.



Young children are often tired in the evening and do not predictably conform to social norms. They may whine or throw tantrums, making it difficult for parents to meaningfully engage in any social activities. Taking them to bars or pubs are also sometimes disallowed. Instead, this year, the Giant's Causeway trip welcomed family members, enabling us to spend time with friends and colleagues at a more child-friendly time of the day and in a more appropriate setting.

In the afternoons, we took the children to the industry exhibition at the conference. To our surprise, they both thoroughly

enjoyed it. The other delegates, staff and company representatives were friendly and accommodating. Our children were showered with presents, made friends and even got to play with surgical kit. Such an impression was made on the four-year-old Miriam that she drew a name badge for herself with her name followed by the word "sojoun" [surgeon]. I was a proud mother that day.

Going forward, creche and breastfeeding facilities must be integral to conferences. Opportunities for families to attend society meetings should continue to

be provided. The presence of children should be welcomed, not merely tolerated. We had much positive feedback from other delegates on the presence of children at the 2022 annual meeting. Many colleagues however were unaware of the offered childcare options, stressing the importance of clear communication, advertising and booking options in advance.

I would like to thank the conference organising team and Isabelle Ferner for providing a great family experience at this year's meeting. To many more future events where kids will indeed be allowed! ■

Scalpel Please ..!

Essam Eldien Abuobaida Banaga, Medical Student at National Ribat University, Khartoum/Sudan



I believe that following a dream and trying to make it come true, is one of the most important things to get accomplished in life. For my own, it was cardiothoracic surgery!

Where else can you see the heart bouncing, stop it and bring it back to life? If general surgeons are doing magic, that means that Cardiothoracic surgeons are doing something more than a miracle every day.

I decided to step up to the operation room, to do my first clinical experience in my intentional future career, as an attached undergraduate doctor in the department of cardiothoracic surgery. It was a Wednesday morning when I got up very early at 5am after a sleep of 3 hours, feeling hyperexcited and even nostalgic for something I was thinking about the whole night. It was my first CABG surgery to attend.

I used to hear that surgeons, especially Cardiothoracic surgeons, deal with the sickest of sick patients in hospitals. One of the main things that inspired me very early towards this specialty was that they actually deal with patients at the edges of their life, having a higher susceptibility to dying without the procedure. It's very rewarding psychologically to be a cause in healing a beating heart that used to be dying and very sick.

I came very early to the ward. I guessed I was with the nurses who were on duty from the last night. I asked the nurse to read the patient's file before the surgery to understand the situation and then went to see our patient.

"Hello Mariam, good morning" said Essam Eldien.

She looked at me, I saw her eyes looking at me very watchfully, starting from the bottom to my head, it is worthy to say that Sudanese patients judge the doctor from whom they seek medical advice by his look more than his hardly gained degrees. She never said hi and for a while I thought she wasn't the right patient, until she responded very late, with a very deep voice that I hardly heard.

"Hi doctor" said Mariam.

Mariam was very fatigued, unable to look after herself.

At that moment I remembered my grandfather, who was a reason for inspiring me into this specialty, I was a grade three student, who used to do lots of activities with my grandpa. He was very close to me, until that day came when he had chest pain and we rushed to the hospital. That day, when we knew that my grandpa had to have open-heart surgery, in a mind of a ten years old kid, looking at his grandpa unable to walk, talk and work and going to surgery - open-heart surgery!

I thought he was dying and would never be alright again. I was heartbroken.

After a day of surgery, I saw him and he was very fine. I was very glad and surprised that he is fine.

From that time I decided to be a Heart Surgeon who fixed patients hearts and fixes patient's relatives hearts too.

After an hour, the senior registrar called me so I got scrubbed up for the operation. Well, it was my first time ever learning how to do surgical hand-washing, surgical scrubbing and how to stay sterilized during surgery.

"Okay.., table up, start counting" said the cardiac surgeon.

The surgeon was holding a size four knife blade, cutting the skin just above the sternum and then he stopped to change his gloves.

An idea came to my mind at that moment. I felt the adrenaline flooding through my blood, hundreds of voices inside of me; *"Say it! Say it Essam Eldien; I know that you want to say it."* Without hesitation, I looked at the nurse, and I said: *"Scalpel please!"*

Yes..! It was my very first time to hold a Scalpel, but at that moment, I felt so me, like I found something in myself; So many feelings at the same time. But, I can say the dominant one was greatness.

So, I was holding the size four knife blade and started cutting the skin, from the sternal notch to the xiphisternal process, and the Surgeon in charge looked at me and he was surprised, not by my skills, but by my confidence.

Then I didn't want to look heavy of him, so I gave him the Scalpel back. After this, the internal thoracic artery was harvested and made ready for grafting.

Now it was time to open the pericardium to make the graft in place. I was so excited to see a beating heart in front of me.

"If general surgeons were pilots, that means that Cardiothoracic surgeons are fighter jet pilots," said the surgeon.

I said *"No..! if general surgeons were pilots that means Cardiothoracic surgeons would be nothing less than astronauts!"*

Then, it was the moment I saw a beating heart in real life. It was beating rhythmically just like books had taught us.

When we finished with the grafting, the surgeon looked at me and he said *"Essam, is it your first time to enter an open heart surgery?"*

I said *"yes sir, it is my first time"*.

He said to me *"because it is your first time, I want you to feel the heart deeply with your hands. Try to make it touch your soul and tell me about your feelings."*

So, I touched the heart with my hands, gently, for some minutes. I looked at him in his eyes and said *"it is a great thing to do miracles like these to sick people, and getting their hearts fixed."*

Two days later, I went to the CCU to check on the patient. She was very energetic I was so surprised and happy also, because we saved her life! ■



BISMICS Minimal Access Mitral Course

John Massey, ST8, Northern General Hospital
Ali Mohammadi, Medical Student, Brighton and Sussex University



In comparison to surgery via sternotomy, minimal access mitral surgery is associated with reduced peri-operative pain, blood loss and infection; patients have a shorter recovery time and a shorter hospital stay. Patients who undergo minimal access mitral surgery are also statistically more likely to return to work sooner than patients who undergo surgery via sternotomy. Despite this, minimal access mitral surgery is not available in all UK cardiac surgical centres. Therefore, surgical trainees are not guaranteed exposure to minimal access techniques during their training. With this in mind, The British Minimal Invasive Cardiac Surgery Society (BISMICS) have identified that cardiac surgical trainees need support in gaining minimal access skills and they delivered

the first 'BISMICS Masterclass: Minimally Invasive Mitral Surgery' course.

The course was organised and directed by Mr Ishtiaq Ahmed and held on the 27th of April 2022 at the Brighton and Sussex Medical School in their Anatomy Laboratory. The venue was of an extremely high quality, which was easily accessible by train and car. The course was opened up to a small number of senior trainees and there was a 1:1 ratio of faculty to trainees. Additionally, the course was recorded and live streamed with capability for use with augmented reality headsets. The faculty consisted of experienced, high volume, minimally invasive surgeons (Mr Ishtiaq Ahmed Royal Sussex County Hospital, Mr Ranjit Deshpande King's College Hospital and Mr Dincer Aktuerk St. Bartholomew's Hospital), who combined didactic lectures with hands on practical experience to deliver the course.

The practical hands on experience was delivered in the anatomy lab itself. One fresh frozen cadaver was shared between the delegates to perform all the steps of a minimally invasive mitral repair under direction by the faculty. The course began with explaining how to position patients appropriately and how to plan the appropriate site for optimal access to the heart. Trainees were then taken through peripheral cannulation and cannula selection. Following this, trainees were taken through how to access the heart and position the x-clamp safely. Finally, trainees performed a mitral repair through a mini-thoracotomy with video assistance. All the instruments and disposable equipment was of a high quality and everything required to perform the procedure was available.

The lectures covered how to appropriately select patients, pre-operative investigations and common pitfalls in



3D Printed mitral valve being used to practice neo-chord placement



Delegates using the minimal access simulator with minimal access instruments

minimally invasive surgery. In addition to this there was a minimally invasive mitral repair simulator, which was used to practise instrument handling and neo-chord placement.

As a surgeon with an interest in mitral repair, this was an excellent opportunity to gain experience in minimal access techniques thus allowing one to be involved in the expansion of minimal access surgery within the UK. The course has been accredited by the SCTs for 4 CPD points. I can highly recommend that any trainees interested in minimally invasive mitral surgery attend this course. Also BISMICS and its members are committed to supporting trainees and their upcoming meeting in December 2022 is a must for trainees. ■

Complex Mitral Valve Repair Training at the Bristol Heart Institute: An International Fellow's Perspective

Ivan Zelentsov, Bristol Complex Mitral Valve Repair Fellow, Bristol Royal Infirmary



The prevalence of mitral regurgitation in the UK is 3.5%. It is the highest among all valvular pathologies and rising strikingly with the advancing age. Surgical mitral valve repair remains the most robust treatment modality, allowing a patient to return to a normal life expectancy.

Contemporary cardiac surgery training pathways in North America and the UK primarily focus on procedures that are more commonly seen in practice. Due to a lack of volume and the fact that mitral repair cases are considered more appropriate for senior consultants, most trainees do not have an opportunity to develop necessary skills. Therefore, if a graduate of the cardiac surgery program is willing to pursue a career in mitral surgery, they must undertake additional training usually in a form of fellowship. In this article, I wish to share my experience as a Complex Mitral Valve Repair Fellow at the Bristol Heart Institute.

I completed my cardiac surgery training in Canada (University of Manitoba) in June 2021 having mitral valve surgery on the top of my interest list. I learned about the Mitral Fellowship in Bristol from my Canadian colleague, Daniel Burns, who previously completed this training program. He is currently a Staff Surgeon at Cleveland Clinic, USA and one of three Canadian cardiac surgeons who pursued their fellowship in Bristol and gained impressive achievements in the field of mitral surgery. After speaking with him, I was convinced that I should seriously consider this program for my fellowship training.

The Fellowship at Bristol Heart Institute has now been running for six years and has allowed surgeons to graduate and get appointed as Consultants both in the UK and abroad. The main advantages of this training program are high volume of cases with three senior mitral surgeons, prolific minimally invasive mitral program, active multidisciplinary transcatheter mitral program, and supportive team of consultants and trainees. The fellowship is for a period of 12 months with dedicated allocation to at least two mitral

surgeons. This allows a Fellow not only to learn specific surgical techniques but also to master other aspects of a consultant's practice, and, as a result, to transition to their own independent practice more smoothly.

On average, I am involved in 2-3 theatre days each week. The volume of mitral cases allowed me to better understand mitral valve pathology and different approaches to repair by the three surgeons. Due to the hands-on nature of the fellowship, I have rapidly acquired key technical skills. The support by the mitral surgeons, who are constantly engaged and interested in the well-being of the Fellow, has been phenomenal. The flexibility of the work environment and supportive team of trainees enabled me to participate in mitral cases even outside of my formal "theatre days". It provided a unique opportunity to see a large number of complex mitral repairs in a relatively short period.

Working at Bristol provided an additional benefit of learning various minimally invasive (MIS) approaches to mitral and aortic valves. Despite the high-risk profile of valvular surgical patients during the COVID pandemic and the greater proportion of urgent cases, there was reasonable exposure to MIS whilst the MIS case numbers rapidly return to pre-COVID numbers.

In the current era, when transcatheter approaches to valvular pathology become a standard of practice and new techniques are being announced almost every month, it is important for a cardiac surgeon to become engaged in this field. The Mitral Multidisciplinary Team at Bristol Heart Institute is represented by cardiac surgeons, interventional cardiologists, cardiac anesthesiologist, nurse practitioners, and industry representatives. The team is actively working with several core labs. This exposure allows a trainee to learn the whole spectrum of mitral pathology, as well as the suitability and advantages of each treatment approach. Working with industry representatives helps to appreciate the nuances of the decision-making process and logistics in complex cases such

as valve-in-valve TAVI and Tendyne valve (program due to start in June 2022).

There is a high volume of routine cases as well, which allowed additional opportunities to develop skills in less specialised surgery and built my confidence in preparation for independent consultant practice. Bristol is also well-known centre for beating heart surgery. Being a first operator in such cases enables a fellow to further improve surgical dexterity and feel more comfortable in a field that cardiac surgery trainees in Canada are less exposed to.

The negatives of the training programs are few, most of which are related to case cancellations. COVID 19 pandemic affected surgical case volume around the world. Even though I joined the team in Bristol in latter part of 2021 when the amount of COVID cases was high, the number of mitral cases were still sufficient for successful training.

Another advantage of being trained at Bristol is the proximity to many mitral courses and conferences Europe has to offer. In just a few months, I attended Focus:Valve course in Innsbruck, AtriCure in Brussels, and BISMICS conference in London. It is a valuable addition to the training and an excellent opportunity for networking in the field of mitral surgery.

Living in Bristol is a great experience on its own as it is a beautiful city with vibrant culture. I came with my family, and we all enjoyed the lifestyle and lots of activities around the city.

Whilst finishing my Fellowship at Bristol, I have been fortunate to be appointed as Staff Surgeon in New Brunswick, Canada after a stringent selection process. I am confident that the UK Fellowship has significantly improved my understanding of mitral pathology and provided me with crucial skills in simple and complex mitral valve repair which I will be able to apply when I start my Consultant position in August 2022 in Canada. This experience has reassured me that by the time I become an independent practitioner, I will be able to treat majority of mitral valve pathologies comprising the scope of my specialist mitral practice. ■

The Impact of the NHSEI Covid-19 Harm Review on Patients currently on the Cardiac Surgical Waiting List: University Hospital Southampton's Experience



Christina Bannister, Nurse Case Manager, Southampton General Hospital

Throughout the Covid-19 pandemic, cardiac surgery within many of the units in the country has either been drastically reduced or halted completely. This has resulted in longer waiting lists with patients waiting months for their operations. The impact this has had on our units is huge, with services post Covid now trying to recover and admit patients into the Trusts, especially through the ICU's. Patients waiting are anxious and many have deteriorated making the surgery more complex with multiple procedures being needed instead of the one originally identified. Their intensive care stay has been increased in some cases, which again has impacted our unit's capacity and ability to cope effectively.

At Southampton General we experienced all these issues over the past couple of years. We have tried to restart

our cardiac surgery service effectively, but throughout we have maintained a communication stream with our patients to ensure no harm results whilst waiting and that we operate on the most urgent patients with the greatest need. This article details the Harm Review process that we undertook, one that is extremely useful for all Trusts to implement, one that enabled us to restart our surgical programme post Covid effectively. Following the work that remains ongoing, we presented our findings at both the recent SCTS Annual Meeting in Belfast and at the National Cardiac Benchmarking Collaborative Conference in London this year. Although this article details the clinical impact of the Harm Review, we wanted to share it with the wider SCTS audience as an effective tool to any Trust struggling with post-Covid staffing and bed issues, especially with their intensive care footprints. This process gave

us the power to regain the cardiac ward & intensive care beds & repatriate the cardiac nurses from the General ICU environment & fundamentally reopened cardiac surgery at our Unit. For any other unit experiencing similar issues, we recommend this as a course of action, which has the added benefit of identifying those patients most at need for surgery.

We began the process in September 2021 when the Harm Review examined all P2 patients on the waiting list. P2 patients, according to the RCS, need surgery that can be deferred for up to four weeks; patients with severe AS, MR & unstable coronary symptoms. The aim was to contact those most at risk, patients who were increasingly symptomatic, to maintain safety for those waiting, to reassess in clinic any patient with worsening symptoms, & to reprioritise any deteriorating patient due to clinical need and/or admit them directly for urgent surgery. For the first review 152 P2 patients received a call to ascertain their current symptoms. Using the NHSEI guideline, each patient's waiting time was identified along with the reasons for their surgical delay, patient/GP involvement & their current clinical harm rating (none, mild, moderate or severe harm). Patients with similar or no worsening symptoms to their original OPA were rated as mild & those with progressive symptoms but who felt they did not need or want a surgical review were rated as moderate. The third group with progressive symptoms needing an outpatient review were planned to be

“We have tried to restart our cardiac surgery service effectively, but throughout we have maintained a communication stream with our patients to ensure no harm results whilst waiting and that we operate on the most urgent patients with the greatest need.”

rated at the time of that reassessment to accurately identify their clinical harm rating & reprioritise if necessary.


Of the 152 patients contacted 60 were given a mild rating & 64 a moderate rating. The third group of 28 patients were reassessed in an outpatient appointment over the Autumn period and given either a moderate or severe rating based on their symptoms and clinical status. One such outpatient clinic with 3 Harm Review patients seen resulted in 2 patients continuing the waiting list as P2 priorities, however the third patient had deteriorated significantly & was admitted from the clinic & listed for urgent cardiac surgery.

Following the first review, subsequent assessments were undertaken in November 2021 & March 2022. These contained some of the previous patients called who had not had surgery due to clinical, Trust or personal reasons. Another 81 P2 patients were added to the second review, with a further 89 subsequently.

Matrix of Clinical harm against clinical priority & recommended action

Level of clinical harm	Clinical priority	Priority 1a: <24 hrs Priority 1b: <72 hrs	Priority 2: <1 month (urgent and cancer)	Priority 3: <3 months (routine expedited)	Priority 4: >3 months (routine)	Adapt or bespoke investigation/treatment site/follow up
None	n/a		Stay P2 PTL review by 3 months	Stay P3 PTL review by 6 months	Stay P4 PTL review by 12 months	Adapt or bespoke investigation/treatment site/follow up
Mild	n/a		Stay P2 PTL review by 3 months	Stay P3 PTL review by 6 months	Stay P4 PTL review by 12 months	Adapt or bespoke investigation/treatment site/follow up
Moderate	Stay P1 PTL review daily or weekly	Stay P2 PTL review by 1 month	NEW P2 PTL review by 1 month	NEW P3 PTL review by 3 months		Adapt or bespoke investigation/treatment site/follow up
Severe	NEW P1a PTL Review daily	NEW P1 b PTL review daily or weekly	NEW P2 or P1b PTL review by 1 month	NEW P2 or 1b PTL review by 1 month		Adapt or bespoke investigation/treatment site/follow up

Review of P2 Cardiac Patient harm whilst waiting for treatment¹



Provider:

Pathway (specialty):

Designation of clinician completing review:

Incident number:

Date of review:

1. Total weeks waiting as P2

2. What were the reasons for the delay?

	Primary reason	Secondary reason	Other reason
Delays by other provider(s) involved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Delayed diagnostics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of equipment/access to equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Theatre capacity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cancelled clinics (Trust non-COVID-19)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient choice (cancelled appointments, holidays etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workforce – staffing levels/sickness/annual leave	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please state):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COVID-19 – direct impact:			
C-19 Patient choice – anxious	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C-19 Lack of diagnostics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C-19 Cancelled clinics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C-19 other: please state	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Patient / G.P. involvement

i. Has the patient been informed of plans in place and advised of red flags? Yes No No, not required

ii. Has the patient's GP been informed of plans and advised of red flags? Yes No No, not required

4. Current clinical harm rating

Please tick one box below	Clinical Harm ² rating	Definition	Recommended action(s)
<input type="checkbox"/>	None	Neither current wait nor proposed deferral of investigation or treatment will cause organ damage or alter management	Consider discharging to primary care with appropriate safety netting. If not appropriate, continue with existing Priority category and review pathway annually
<input type="checkbox"/>	Mild	No actual harm caused by current wait but proposed deferral may cause limited harm (no organ damage or change in prognosis but may impact on psychological well-being or functional status)	Consider discharging to primary care with appropriate safety netting. If not appropriate, continue with current Priority category and schedule next event (accounting for time already waited)
<input type="checkbox"/>	Moderate	Current wait has caused mild actual harm or Proposed deferral may cause moderate harm in terms of organ damage, altered prognosis, change in treatment options, reduced functional status, severe pain and/or significant psychological distress	Move up a Priority category (from current category) and schedule next event (accounting for time already waited) Alert patient and GP
<input type="checkbox"/>	Severe	Current wait has caused moderate actual harm or Proposed deferral may cause severe harm in terms of organ damage, altered prognosis, change in treatment options, reduced functional status, severe pain, overwhelming psychological distress, and/or treatment intent changed to palliative/terminal care only	Move up a Priority category (from current category) and consider if harm warrants escalation to P1b Alert patient and GP Ensure active tracking at least weekly

Please report all levels of harm as an incident

¹ Adapted from NHS West Hampshire CCG & [Towards a standardised method of patient prioritisation that accounts for clinical harm | RCP Journals](https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/10/C0760-Clinical-validation-of-surgical-waiting-lists-1-2.pdf)
To be read in conjunction with <https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/10/C0760-Clinical-validation-of-surgical-waiting-lists-1-2.pdf>

² Harm as indicated by one or more of the following

- further disease progression
- a reduction in treatment options available to them
- the need for more radical treatment/surgery
- prolonged (28 days or more) psychological harm
- loss of functionality greater than anticipated, based on their condition
- loss of independence/significant lifestyle changes (e.g. employment, education, caring responsibilities, social)

The Harm Review was an enormous task to complete, which we were only able to undertake with the help of two non-patient facing nurses. The Trust acknowledged the impact of these reviews & began to support the cardiac patients as a surgical priority. NSHEI also recognised the severity of the situation & closed the cardiac surgery inter-hospital transfer (IHT) system for a period of 4 weeks, diverting patients to other cardiac centres close-by. This was a complex process aided by both Brighton & Oxford University Hospitals; we worked together transferring patient data & images between the units ensuring all patients received the care they needed. Weekly MDTs examined both inpatient & urgent elective patients waiting & by 6 weeks later we had been able to admit the patients most at risk, those in the severe category who all had their cardiac surgery with many of the moderate patients also undertaking their operations. The IHT system was then fully reopened.

The Harm Review process has enabled the surgical team an effective means of expediting deteriorating patient's surgery & minimises the risk for those currently waiting. It is a useful tool to ensure safety for patients waiting for cardiac surgery. Most patients found the calls reassuring & welcomed the continued contact with the nursing team during prolonged waiting times. The process has also improved the communication channels between 3 cardiac surgical centres in the South and in a new revived era of network working this is to be encouraged and celebrated. Moving forward, the Harm Review is a continuous process where we contact the patients waiting on a 4-8 weekly basis, but the Consultants review the most at risk on a weekly MDT providing the excellent care cardiac surgery is known for. ■

Letters to the Editor

Dear Editor,

As a new member of the SCTS and a medical student interested in the field, I was delighted to receive my copy of the Bulletin in January of this year. I read the whole thing, cover to cover, trying to learn as much as I could about the specialty, the people in it, and what they were doing. It is no false claim to say I was looking for inspiration and encouragement in the pursuit of a career in cardiothoracic surgery.

You can understand my disappointment, then, when on page 63 of the Bulletin there was printed (in English and Greek) an original version of the Hippocratic Oath. The original version of the oath includes the assertion that a doctor must never give a pessary to a woman, allowing her to have an abortion. There are other parts of the original oath which are also difficult to defend, but it was this part in particular that caught my attention.

When discussing this with other young members of the society (who are co-authors of this letter), they encouraged me to quote facts. They told me I should reason that 1 in 3 women in the UK experiences abortion, that 25% of pregnancies end in abortion¹ and that over 50% of medical students feel that a modified oath should be used instead of the original². While these things are all true, I don't believe that a treatise in abortion statistics should be the cornerstone of the criticism of the inclusion of the oath in the magazine.

It is offensive, unnecessary and it excludes people. These three reasons are impossible to argue with, even without the use of statistics. It is offensive to suggest any doctor should swear not to provide legal healthcare, it is unnecessary to bring the abortion debate into a magazine that is about cardiothoracics, and it excludes any person who thinks abortion is acceptable.

I would ask the editor what is the point of filling a magazine with articles about Women in Cardiothoracic Surgery, Equality Diversity & Inclusion Analysis, and Black Lives Matter and then include an archaic and ultimately unnecessary oath which excludes people? It seems a contradiction in terms.

There are many variations of the oath which include the 4 Bioethical Principles but do not have clauses that would be discriminatory. I would argue that any of these would still uphold the original idea that a doctor is duty bound to provide the best care and hold steadfast to the four principles of biomedical ethics. It is these principles I am loyal to, and these principles I would wish to be reflected in the publication of a specialty I admire.

Kind Regards,

**Charlie Bailie, Medical Student, University of Nottingham
Equality, Diversity & Inclusion Subcommittee, SCTS**

¹ Abortion Statistic in England & Wales. Department of Health and Social Care. June 2021

² Baumgartner F, Flores G. Contemporary Medical Students' Perceptions of the Hippocratic Oath. *Linacre Q* 2018;85(1):63-73

Dear Charlie,

I am delighted that you have taken the time to candidly express your views on the Hippocratic Oath.

As stated in my editorial, the Oath was printed in both languages at the request of our Patron Mr Marian Ionescu who has magnanimously funded more than 170 Fellowships for doctors and medical students to give the Fellowship supplement a scholarly look. In the previous issue, I had alluded to the Declaration of Geneva & the Helsinki Declaration, the Nuremberg Code and medical ethics. Whilst I fully understand and respect your sentiments, Oaths like Charaka Shapath (the oldest Oath in the world in Sanskrit) and the Hippocratic Oath have largely been modified or replaced in most parts of the world. The content of the Oath based on the level of advancement in medicine, perceptions, and legalities at that point in time is open to interpretation and whether it was a moral objection to abortion is an area of debate in itself. More importantly, these oaths are the first ever delineations of medical ethics.

With regards to the point that you raise about filling the magazine about BLM, WICTS and ED&I analysis, I must gently point out that these publications have been achieved by extremely hard work done by dedicated individuals who have relentlessly strived for the hitherto unheard voices to be heard. Your letter too embodies the same and a sure sign of changing times which can only be a good thing.

Regards,

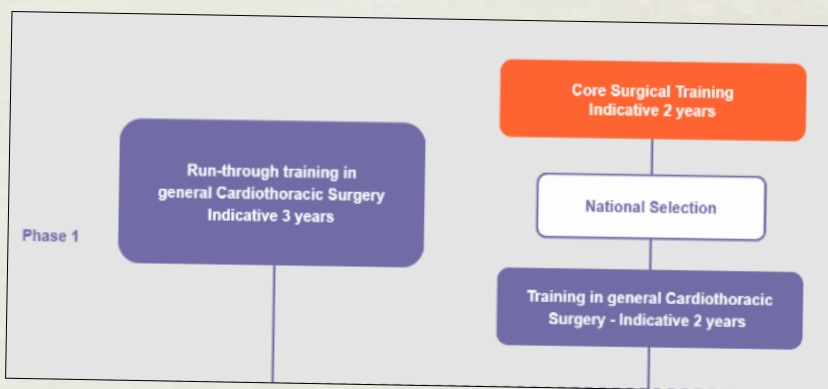
Indu Deglurkar, Editor-in-Chief, SCTS Bulletin

Dear Editor,

I write to our readers with the following question, do we need to consider a reform in early years training for nationally appointed trainees (NTN) – is there a case for change?

Entering the end of ST1, I worry about my progression in the early stages of my career and the effect the current models have on my future.

The Shape of Training review¹ and Standards for Postgraduate Curricula² provided opportunities to reform postgraduate training. With that, the new Intercollegiate Surgical Curriculum of 2021 divided Cardiothoracic training into 3 phases, with Phase 1 encompassing the early phases of junior training^{3,4}.



Run-through training vs Core Surgical Training

The majority of ST1/2 trainees are currently under the umbrella of ‘Core Surgical Training (CST)’ with our Training Programme Director (TPD) typically of non-cardiothoracic background. As a consequence, there is a large emphasis on non-cardiothoracic training, with CST geared towards General Surgery. Whilst this is great for acquisition of basic surgical skills and development of MRCS examination knowledge, 2/3 of our Phase 1 Training is diluted. Given that we also have no formal ties to the Cardiothoracic TPD for ST1 and ST2, there is no way to monitor our training progression for 2/3 of our Phase 1 Training.

Solution: Dissolvement of CST leadership for ST1/2 trainees and integration into Cardiothoracic TPD leadership.

SHO rota

At ST1, and more importantly ST2 level, the majority of units still assign trainees on generic SHO rotas. Unequivocally, it is essential for junior trainees to develop skills in ward management. However, is it appropriate for NTN’s to be on the same rota (holding the same responsibilities) as FY2 doctors, despite very different educational requirements?

With 2/3 of Phase 1 training in largely SHO roles, it is increasingly difficult for trainees to acquire enough theatre exposure to achieve the stipulated number of cases (indicative number) to be deemed competent and ready for ST3 training and beyond.

Furthermore, the majority of units still consider ST3 trainees as independent junior registrars, and often a Day 1 ST3 may be

Capabilities in practice	Supervision Level (end of phase 1)
Manages an out-patient clinic	Able and trusted to act with direct supervision
Manages the unselected emergency take	Able and trusted to act with indirect supervision
Manages ward rounds and the on-going care of in-patients	Able and trusted to act with indirect supervision
Manages the operating list	Able and trusted to act with direct supervision
Manages multi-disciplinary working	Able and trusted to act with direct supervision

expected to manage ward rounds, first-assist in theatres, manage the on-call emergency take and cover night on-call independently, with some units requiring cover of Cardiac ITU. With the current format of ST1/2 under CST on SHO rotas, we are not providing any true opportunity to prepare for this.

Solution: Provide ST1/2 trainees with more time in Cardiothoracic rotations. Empower units to ensure ST1/2 trainees have clearly outlined responsibilities in line with their curriculum, ensuring rotas allow for this.

Ideally, providing ST1 doctors with ‘supernumerary’ roles and providing ST2 doctors with supervised junior-registrar level rotas.

Reflection

With this in mind, I look to our community to action change in their own individual units. We must standardise junior-level training and provide opportunities for ST1/2 trainees to progress and excel, in preparation for ST3. Ultimately, improving training will not only enthruse our trainees, but will encourage future applicants to this fantastic speciality.

Kind Regards,
Cardiothoracic Trainee

¹ <https://www.gmc-uk.org/education/reports-and-reviews/shape-of-training-review>
² <https://www.gmc-uk.org/education/standards-guidance-and-curricula/standards-and-outcomes/excellence-by-design>
³ <https://www.iscp.ac.uk/iscp/curriculum/cardiothoracic-surgery-curriculum/2-purpose/>
⁴ <https://scts.org/sctstoolkit.aspx>

Dear Cardiothoracic Trainee,

Thank you for your letter. I have passed it on to the appropriate committee, and we will publish a response in the next Bulletin.

Regards,
Indu Deglurkar, Editor-in-Chief, SCTS Bulletin

Advanced Cardiac Surgery post-CCT Fellowship at Waikato Hospital, New Zealand

The perfect “finishing school” in a wonderful country



Alessandro Viviano, NTN Trainee, Hammersmith Hospital, London

Organising the Fellowship

Approaching the end of training as an NTN in the London deanery, I felt my training had been well rounded. Still, I needed more to become genuinely independent before taking on a consultant position. I had been looking at fellowships options around the world for quite some time, and New Zealand had always been at the back of my mind. I have made contact with Mr David McCormack, a former London trainee who at the time was Clinical Director for Cardiothoracic surgery and is now Associate Chief Medical Officer in Waikato. He immediately engaged

and helped me organise all aspects of my Fellowship, from the application process to Medical Council registration and accommodation. David and the whole team in Waikato have been ever so helpful and made our transition to New Zealand seamless and extremely exciting.

Initial impressions

New Zealand is wild, magnificent and welcoming. I felt New Zealand is free from the hectic distractions and complexities of life I experienced in Europe and the UK, leaving more space for real, deep and meaningful relationships. Nearly a year has passed now, and New Zealand still feels like my second home, with relationships which will last a lifetime.

The Māori Culture

New Zealand is soaked in history and Māori culture, which is embraced by the population. Te Reo Māori, ‘the language of Māori’, is one of the recognised official languages of Aotearoa New Zealand. Our kids in school learned so much and integrated with the local culture very quickly, and today can recite poetry and blessings in Te Reo Māori. The feeling is of an inclusive and respectful culture. The Māori are a remarkable and resilient population that we thoroughly enjoyed getting to know and making friends with.

Surgical exposure

In December 2020, I started my Advanced Cardiothoracic Fellowship at Waikato District Health Board, where I immediately took part in the 1:4 on-call consultant roster. I was allocated an average of two independent operating sessions per week under my name. These lists consisted of routine, urgent, and often emergency cardiac surgery procedures such as coronary artery bypass graft, aortic valve replacement, and combined valve and graft procedures, including high-risk cases. In addition to these, I covered at least one or two supervised lists for more complex cases with ample opportunities to build up my experience in aortic surgery, which is my subspecialty interest. I received outstanding mentorship in complex procedures such as aortic dissections, root replacements, mitral valve repair and replacements, which I often performed as a primary surgeon, as well as PEARS procedures. I have performed complex aortic procedures as a primary surgeon, such as aortic dissection repairs and high-risk root replacement, as well as mitral valve repairs, replacements and ventricular aneurysmectomy, amongst others. In 9 months, I performed 123 cardiac procedures as a first operator, of which 86 independent and four aortic dissection repairs with excellent clinical outcomes.

New Zealand has a high prevalence of aortic disease and rheumatic valvular disease due to ethnic and socio-economic



reasons compared to many western countries. Complex aortic and combined multivalvular procedures and high-risk redo cases are performed on a daily basis in Waikato, with continuous mentoring opportunities that have helped me develop robust decision-making and sound independent thinking. I effectively functioned as a consultant, but at the same time, I had all the help and support I needed available at all times.

Life experience

The cardiothoracic team in Waikato is a very friendly and outgoing group. We often met outside work for a bike ride or dinner or simply to meet up for a cup of coffee. As a family, we took a caravan trip to the South Island, which is breathtaking. Driving through the rainforest and moving from glaciers to sandy beaches in a matter of hours is remarkable. New Zealand is a showdown of beauty and mighty nature alongside Auckland's modern feel and bustling life.



We also had the unique opportunity to see the All Blacks rugby team playing in Hamilton against Fiji.

Post fellowship opportunities

My Advanced Cardiothoracic Fellowship at Waikato has completely transformed my clinical and operative abilities allowing me to transition from trainee straight into functioning as an independent Consultant. I have now been appointed as Locum Consultant Cardiac Surgeon at Imperial College London, Hammersmith Hospital. The Waikato fellowship has definitely given me a big head start, taking away that fear of day one consultant making me a much more confident surgeon and, above all, allowing me to enjoy the process fully.

I would definitely recommend to anyone approaching the end of training to look for a post CCT Fellowship. The value it can add is unmeasurable, and Waikato is exceptional in providing all this alongside an unforgettable life experience with amazing people. ■

SCTS Ionescu Fellowship for Foundation Doctors – The Papworth Experience

Dr Jordan Green, Academic Foundation Doctor at Hull University Teaching Hospitals NHS Trust



I was fortunate to undertake a fellowship at the Royal Papworth Hospital under the supervision of Mr Aman Coonar. Upon my arrival I was welcomed by all and was immediately integrated within the team.

My experience at Papworth was exceptionally immersive; from assisting with a pulmonary thrombo-endarterectomy to observing a heart transplant, I was privileged to spend time across the breadth of the specialty. Notably, I became involved with several cases requiring multi-disciplinary input from an array of clinical

teams. I thoroughly enjoyed being able to learn from the way these teams worked seamlessly with one another to perform complex unique operations.

This fellowship also presented me with a great opportunity to further explore my interests in minimally invasive surgery. Through this I was able to build my core surgical skills and confidence within theatres, and I gained great value from assisting in multiple subxyphoid approaches. Moreover, I was privileged to be involved in the first use of the new Freehand Panorama

system for robot-telescope supported VATS within the department, highlighting the use of innovation within this exciting specialty.

Overall, my time at Papworth was truly remarkable. The incredible mentorship provided by Mr Coonar and the wider surgical team has provided me with great insight into the rewards and challenges of a career in cardiothoracic surgery. I would like to thank Mr Ionescu, SCTS, and all the team at the Royal Papworth Hospital for enabling this invaluable and unforgettable experience. ■

2020 SCTS-Ionescu NTN Trainee Travelling Fellowship



Jason Ali, NTN Trainee, Royal Papworth Hospital, Cambridge

I had the privilege of being awarded the 2020 SCTS-Ionescu NTN Trainee Travelling Fellowship. My plans were put on hold because of the COVID-19 pandemic, but I was finally able to make my trip in February 2022. I visited the Smidt Heart Institute at Cedars Sinai Medical Center in Los Angeles as an observer of the transplantation programme.

I chose to visit Cedars Sinai Medical Center as it has become highly regarded internationally as a high-volume cardiothoracic transplant unit, performing the largest number of heart transplants (120) in the USA in 2021, and has a growing and innovative lung transplant unit – performing 60 lung transplants in 2021, including two performed with a Da Vinci robot.

I was made to feel very welcome by the Chair of the department Dr Joanna Chikwe, and the entire transplant team. I had the freedom to spend my time exploring all aspects of the department including spending time with the transplant cardiologists and pulmonologists, observing the many multidisciplinary meetings, attending organ procurements and observing all transplant and mechanical circulatory support procedures.



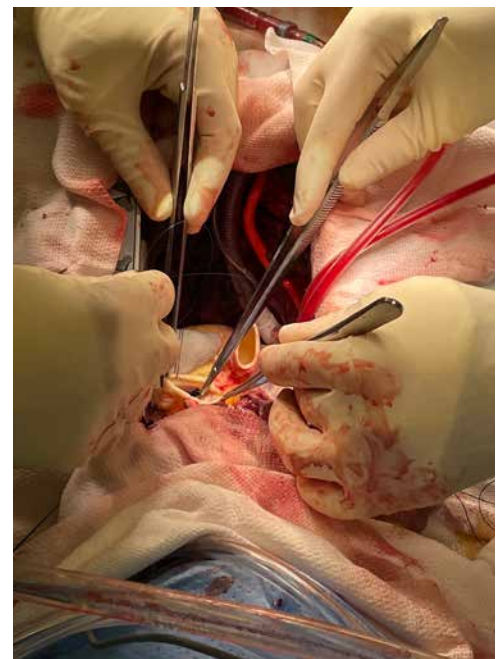
During this time I was able to appreciate the efficiency of the US healthcare system and also the many differences from the NHS, most notably the impact of financial considerations on the delivery of healthcare – ranging from the presence of finance personnel in the multidisciplinary meetings contributing to decision making about listing potential recipients, to medical and allied healthcare consultation notes being written in a such a way as to ensure the correct tariff is collected – including noting the duration of the visit – necessary to claim the appropriate fee.

During my month long visit I had the fortune to observe 14 transplants – 7 heart and 7 lung. The heart transplants included one patient requiring explant of a Syncardia Total Artificial Heart. It was notable that there was very good access to heart donors – with patients on the equivalent of the UK urgent list waiting usually only 2-4 days for a suitable donor. The lung transplants were

mostly performed through bilateral anterior thoracotomies through incisions as small as 7cm and included one patient who was being transplanted for COVID pneumonitis having been on VV-ECMO for several months. One striking observation was the quality of donors available – the average age of the donors I observed was just 36 years old.

In addition, I had the opportunity to observe their approach to mechanical circulatory support including use of the HeartMate 3 left ventricular assist device, use of the percutaneous Protek Duo cannula for right ventricular assistance, axillary arterial placement of the Impella 5.5 as well as central and percutaneous VA-ECMO.

This has been a thoroughly enjoyable and stimulating experience and I have learnt a lot that I will take forward with me in my future career. I would like to take the opportunity to thank Mr Ionescu for providing me with this opportunity for which I will be forever grateful. ■



Ionescu Trust Appointed Doctor Small Travel Fellowship 2021 Award

**Anchal Jain, Trust Appointed Trainee,
Royal Stoke University Hospital**



Having recently moved from the Republic of Ireland after completing my foundation training, I ventured upon opportunities in Cardiothoracic surgery with an aim to progress in the speciality. Mr Maninder Kalkat's prominent personality was highlighted to me by both his trainees and Consultant colleagues. He is known for his expertise in lung cancer, sarcoma, cancer MDTs, airway management, lung transplantation and exceptional VATS procedures.

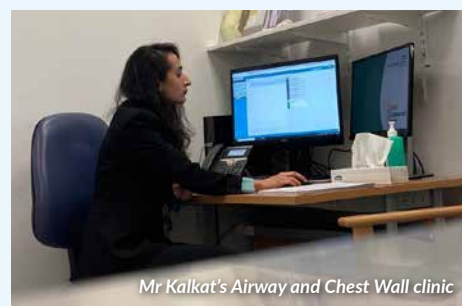
With Mr Ionescu's generous fellowship award, I spent three weeks at University Hospital Birmingham where the entire thoracic department from consultants, registrars, theatre team, clinic nurses and lung cancer nurses were beyond welcoming. This stint in thoracic surgery in one of the busiest services in the country has allowed me to gain robust high volume operative experience to complement early years of surgical

training. The technical complexities of cancer surgeries were instilled via weekly teachings and mentored operative experience unencumbered by the presence of other trainees.

This allowed me to become proficient with VATS port placement and thoracotomies, and novice with performing lung resections and uniportal minimally invasive thoracic surgeries. Multidisciplinary meetings, outpatient department (particularly Mr Kalkat's airway management and chest wall clinic), audit meeting and ward responsibilities also formed a part of this comprehensive training. Some

of the highlights of my time there included assisting in chest wall reconstruction surgery, observing tracheal resection, and performing 3-Dimensional VATS procedure.

I am humbled and grateful to Mr Ionescu and the SCTS committee for this opportunity that helped build by foundation in thoracic surgery. With the COVID-19 pandemic and uncertain long-term consequences, the future of thoracic surgery (specially minimally invasive) is full of possibilities. With newer innovations and constantly adapting techniques, learning from leaders in the field of thoracic surgery such as Mr Kalkat will help pass wisdom down the generations. ■



Mr Kalkat's Airway and Chest Wall clinic

Ionescu Student Fellowship: Two-week intense immersion in all things cardiothoracic surgery

**Bertie Harrington, Medical Student,
Royal Sussex County Hospital, Brighton**



At the beginning of August I had the pleasure of joining Mr Simon Kendall at the James Cook University Hospital in Middlesbrough for a two week placement in cardiothoracic surgery. Mr Kendall is an amazing supervisor, educator and surgeon; throughout the placement he took the time to make sure that I felt supported and welcomed as well as ensuring that I had a packed and fulfilling schedule. I went into the placement hoping to improve my understanding of the scope of a career in cardiothoracics and work on my confidence and practical skills in theatre.

From day one I was in theatre, scrubbed and assisting almost every day following. I experienced a range of procedures including both cardiac and thoracic surgeries, cardiac angiography and stenting, transthoracic and

transoesophageal echocardiograms, and much more. During my time at JCUH I experienced their brand-new education centre being allowed to take part in a regs' teaching morning on aortic valve replacement that included wet-lab valve replacement teaching. All the trainees that I met went above and beyond to teach, give me advice on applying to specialty training and make me feel part of the team.

This incredible placement was a unique experience and the highlight of 2021 for me, it has allowed me to develop my practical surgical skills, improve my confidence in theatre and learn about many of the intricacies of the speciality. I implore any keen or questioning medical students to organise a placement in cardiothoracic surgery at the James Cook Hospital. ■



Mr Kalkat performing airway management surgery: Tracheal resection and reconstruction



SCTS Travel Fellowship 2021 Dublin, Republic of Ireland

Rachel Chubsey MRCS, Glenfield Hospital, Leicester



For the SCTS Travel Fellowship I travelled to Dublin to work with Professor Donna Eaton and the Thoracic Surgery Team at the Mater Misericordiae University Hospital. The objectives were to gain some experience of robotic thoracic Surgery, transplant surgery and VATs left atrial appendage clip procedures. The team have also established an enhanced recovery pathway that I was keen to see and discuss. Unfortunately, due to the increase in COVID-19 cases in Ireland, operating was

limited and therefore much of the operating took place at various private hospitals in Dublin.

The Mater Misericordiae University Hospital was founded by the Sisters of Mercy in 1852. In 1861, the hospital officially opened its doors, and has provided care through several key moments in history, including the Cholera epidemic of 1866, Smallpox in 1871, WWI Ships bringing injured soldiers between 1914-18, and now providing care through the ongoing COVID-19 pandemic [CITATION The21 \l 2057].

The first cardiac surgery procedure was a mitral valvotomy and was performed at the hospital in 1952. The heart transplant programme introduced in 1985 and the first lung transplant was performed in 2005, followed by a double lung transplant in 2007 [CITATION The21 \l 2057]. The thoracic surgery department also perform robotic surgery and video-assisted thoracoscopic surgery (VATs) for the application of atrial appendage clips for the treatment of atrial fibrillation.

On arrival I was taken on a tour of the department, and I immediately was made to feel welcome, with my coffee order quickly being taken. I was also pleasantly surprised by the female presence in the team which was really encouraging to see.

During the first week I was able to participate in a virtual teaching day on Robotic Surgery which was my first real experience of Robotic Surgery. I then accompanied the thoracic team at the Private Beacon Hospital for a VATs left atrial appendage clip procedure for an 80-year-old lady with atrial fibrillation.



During the second week I travelled to St Vincent’s University Hospital to meet the team who frequently perform sarcoma resections where there is invasion into the chest wall or thoracic cavity. Here I observed a large chest and abdominal wall sarcoma resection which was an interesting joint case with general surgery.

I then returned to the Beacon Hospital to assist with the insertion of a tracheal stent for airway protection in the setting of oesophageal malignancy. This was particularly interesting for me as I had also been given the opportunity to work on a case series looking into Y-stents for tracheal stenting in oesophageal malignancy.

As the Mater Misericordiae University Hospital is also the country’s transplant centre I was hopeful that I would be fortunate enough to observe an organ transplant during my visit. During my final weekend in Dublin,

I was lucky enough to attend for a single lung transplant for a gentleman with pulmonary fibrosis. Watching a donor lung re-inflate inside another human being was an inspiring moment for me, knowing the impact that it would have on the life of its new owner. The Enhanced Recovery Pathway for thoracic surgery patients was intense but effective. All patients were mobilised on day 0 and on an exercise bike by day 1, with the equipment available for each patient individually. Pain was strictly controlled to ensure that physiotherapy and mobilisation could take place and to prevent delays to recovery.

While in Dublin I also made the most of the opportunity to explore this fantastic and vibrant city, including its many museums and historical sites, such as Trinity College and the Book of Kells. I took a day trip to the beautiful town of Howth and its stunning coastal walk. My favourite sight however was the stunning river Liffey running through the heart of Dublin, with its many bridges including one named after Dublin’s most famous author, James Joyce.

I had a fantastic time in Dublin and was made to feel so welcome with both the Thoracic and Transplant Teams. My visit was during a particularly tough time for the department when COVID-19 numbers were increasing once again, but they were determined for me to experience as much as possible and for that I am incredibly grateful. ■

Reference

1. **Hospital, The Mater.** The Mater History - Our History. [Online] [Cited: 5 December 2021.] <https://www.mater.ie/about/history-of-the-mater/>



Insertion of a Tracheal stent for airway protection in oesophageal malignancy - R Chubsey and D. Eaton



Boxes for transportation of donor lungs



Above left: The Old Library - Trinity College;



Above right: Howth Coastal Walk; Below: Millenium Bridge over the river Liffey



SCTS-Ethicon Surgical Trainee Fellowship – Lung transplant and thoracic surgery at Toronto General Hospital

James Barr, NTN Trainee, St. George's Hospital, London



Toronto General Hospital has been the world leading lung transplant unit since the first lung transplant was performed there in 1983. The unit continues to innovate with pioneering work on ex-vivo lung perfusion (EVLP) and has performed over 200 lung transplants per year.

The selection process for fellowship involves a written application but visiting the unit is strongly recommended. The working schedule is intensive but is compensated by the excellent training opportunities. Donor retrievals are followed and the opportunity to learn from other international fellows is rewarding. Additionally, operating independently on donor procurements as well as training



juniors has been greatly beneficial for my transition from registrar towards consultant. The implant technique is standardised between the staff surgeons, two fellows scrub for every transplant and it is common to have one fellow implant each side.

Lung transplant in Canada is performed by thoracic surgeons and the technical skills of transplant are valuable for challenging thoracic operations. The fellowship has also given me the opportunity to become confident with EVLP and with plans from Dr Keshavjee to setting up an EVLP hub in the UK, I will be pleased to bring back this experience.

I would highly recommend the fellowship for anyone interested in gaining experience in lung

transplant. The fellowship does place a considerable burden on family life and I am grateful to my wife in particular for rising to the challenge and looking after our children so well whilst continuing to have a successful career herself. ■



A comprehensive solution for beating heart surgery



For more information, scan the QR-code

GETINGE 
PASSION FOR LIFE

New consultant appointments

January to August 2022 ...

Name	Hospital	Consultant or Locum Consultant	Starting Date
Miss Swetha Iyer	Manchester Royal Infirmary/ Wythenshawe Hospital	Consultant Aortic Surgeon	October 2021
Mr Amir Sepehrpour	Manchester Royal Infirmary	Consultant Mitral & Minimal Access Surgeon	November 2021
Mr Eimad Al-Jaaly	St Thomas' Hospital, London	Locum Consultant Cardiac Surgeon	December 2021
Mr Rashid Aziz	Mater Misericordiae University Hospital, Dublin	Locum Consultant Cardiothoracic Surgeon	January 2022
Ms Hind Elhassan	Castle Hill Hospital	Cardiothoracic Surgery Trust Grade Registrar	January 2022
Mr Michael Gooseman	Castle Hill Hospital, Hull	Consultant Thoracic Surgeon	January 2022
Mr Ashok Narayana	King's College Hospital, London	Locum Consultant Cardiac Surgeon	January 2022
Mr Shantanu Sinha	Glenfield Hospital, Leicester	Locum Consultant Cardiac Surgeon	January 2022
Mr Thomas Tsitsias	Hammersmith Hospital, London	Consultant Thoracic Surgeon	January 2022
Mr Rizwan Attia	Royal Papworth Hospital, Cambridge	Consultant Cardiac Surgeon	February 2022
Mr Marco Scarci	Hammersmith Hospital, London	Consultant Thoracic Surgeon	March 2022
Mr Keng Ang	Freeman Hospital, Newcastle	Consultant Thoracic Surgeon	April 2022
Mr Alessandro Tamburini	University Hospital Southampton	Consultant Thoracic Surgeon	April 2022
Mr Mohamed Ahmed Osman	The Essex Cardiothoracic Centre, Basildon Hospital	Locum Consultant Cardiac Surgeon	May 2022
Miss Alessia Rossi	The Essex Cardiothoracic Centre, Basildon Hospital	Consultant Cardiac Surgeon	May 2022
Mr Matthew Smith	Liverpool Heart & Chest Hospital	Consultant Thoracic Surgeon	May 2022
Mr Eshan Senanayake	Queen Elizabeth Hospital, Birmingham	Consultant Cardiac Surgeon	June 2022
Mr Robin Wotton	St. George's Hospital, London	Locum Consultant Thoracic Surgeon	June 2022
Mr Piergiorgio Solli	Royal Papworth Hospital, Cambridge	Locum Consultant Thoracic Surgery	July 2022
Mr Tim Batchelor	St Bartholomew's Hospital, London	Consultant Adult Thoracic Surgeon	September 2022

Demitted roles

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

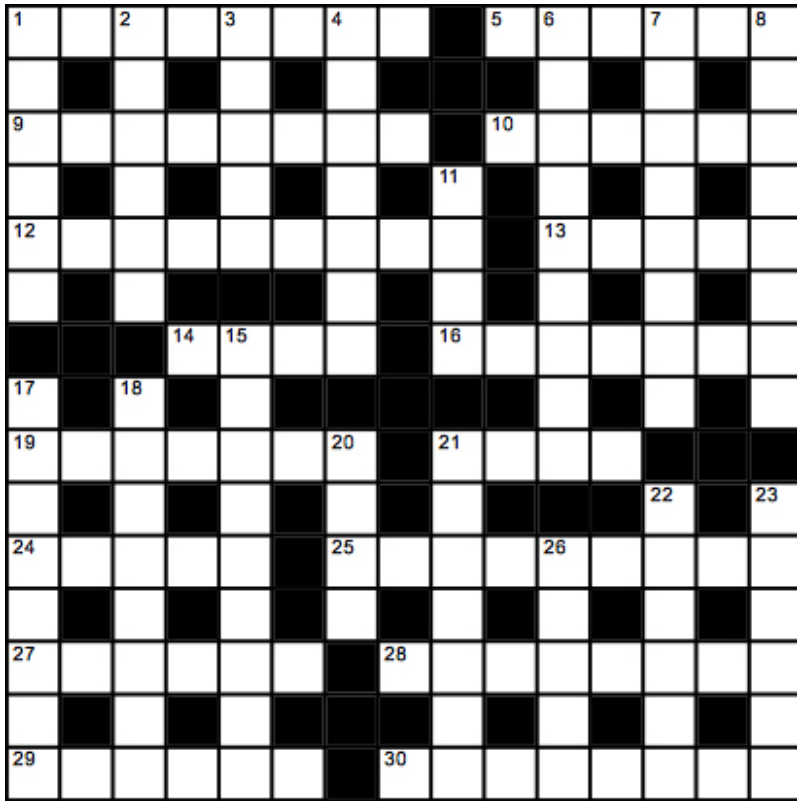
Role	Name		
SCTS Honorary Secretary	Narain Moorjani		
SCTS Meeting Secretary	Maninder Kalkat		
SCTS Congenital Committee Co-Chair	Rafael Guerrero		
SCTS Executive Committee Elected Trustee	Mobi Chaudhry	Carin Van Doorn	
SCTS Executive Senior Trainee Representative	Duncan Steele		
SCTS Executive Junior Trainee Representative	Abdul Badran		
Intercollegiate Examinations Board	Rana Sayeed		
SCTS Cardiac Committee Appointed Members	Chris Satur	Steven Billing	Shakil Farid
	Bhuvana Krishnamoorthy	Thanos Athanasiou	Mobi Chaudhry
SCTS Cardiac Committee Trainee Representative	Jonathan Afoke		
SCTS Thoracic Committee Appointed Member	Juliet King		
SCTS Academic & Research Committee	Azar Hussain	Rishab Makam	

New roles Congratulations to the following ...

Role	Name		
SCTS President-elect	Narain Moorjani		
SCTS Honorary Secretary	Rana Sayeed		
SCTS Executive Elected Trustee	Manoj Purohit	Vipin Zamvar	
SCTS Meeting Secretary	Cha Rajakaruna		
SCTS Executive Senior Trainee Representative	Bassem Gadallah		
SCTS Executive Junior Trainee Representative	Walid Mohamed		
Intercollegiate Examinations Board	Sri Rathinam		
SCTS Cardiac Committee Appointed Members	Hari Doshi	Giovanni Mariscalco	Georgios Krasopoulos
SCTS Thoracic Committee Appointed Members	Syed Qadri		Malgorzata Kornaszewska
	Nizar Asadi		Mathew Thomas
SCTS Congenital Committee Co-Chair	Andrew Parry		
SCTS Congenital Committee unit representative	Ramana Dhannapuneni		
SCTS Equality, Diversity & Inclusion Committee Appointed Members	Giovanni Mariscalco		Rashmi Birla
	Cecilia Pompili		Nicole Asemota
	Nikhil Sahdev		Shagorika Talukder
	Ahmed Abbas		Chiemezie Okorochoa
	Hanad Ahmed		Aswani Pillai
	Ramanjit Kaur		Charlie Bailie
	Adam Borrer		Samuel Burton
	Jeevan Francis		Sathyam Gnanalingham
	Anoop Sumal		

Crossword

Set by Samer Nashef



Across

- 1 An easy job at home with safe surround (8)
- 5 Criminal bit? (6)
- 9 Expecting to be quietly in power (8)
- 10 Mark Twain's opener in a letter (6)
- 12 Heritage provides low returns in relish ingredients (9)
- 13 For a start, some like Bob Marley (5)
- 14/21 Possible penchant for the final performance (4, 4)
- 16 Smutty broadcast may be time for covering of the ears (7)
- 19 Saw somebody wandering in empty pub (7)
- 21 See 14
- 24 Some music for the priest, as a rule (5)
- 25 Speaking against Cornish food and nibbles (9)
- 27/28 Ref begins manoeuvres round Tyneside match to get perks (6, 8)
- 29 Morgan may be coughing (6)
- 30 Quarrel with miser to produce advertisement (8)

Down

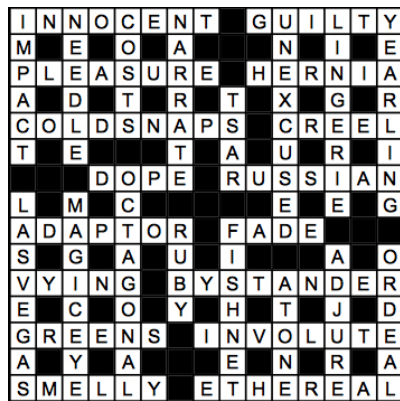
- 1 Originally, such a poet penned homosexual odes (6)
- 2 Playing next, Lionheart: find another way out! (2, 4)
- 3/20 Craft a well-worn jacket for Spooner (5, 4)
- 4 Continue supporting managed capital (7)
- 6 Note for an appalling PM (9)
- 7 Gift ideas, perhaps, but not a drink (8)
- 8 Reckless person's rip-off? (8)
- 11 Man possibly turned up in Helsinki (4)
- 15 Not the best time for revelry for little Philip Green perhaps? (9)
- 17 Particular sci-fi production featuring 'The Rise Of Porcino' (8)
- 18 Won't breaking into a little money lead to a period of rest? (8)
- 20 See 3
- 21 Drunkard on the premises and that's the end of it (2, 5)
- 22 Help musician to drop the intro (6)
- 23 6 18 is 'essential to the bourgeoisie' - Stalin (6)
- 26 Beg pusher? (5)

Please email solutions by 30/09/22 to:

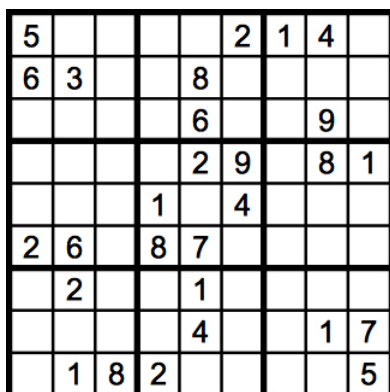
isabelle@scts.org or send to
**Isabelle Ferner, SCTS, 35-43,
 Lincoln's Inn Fields, London WC2A 3PE**

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

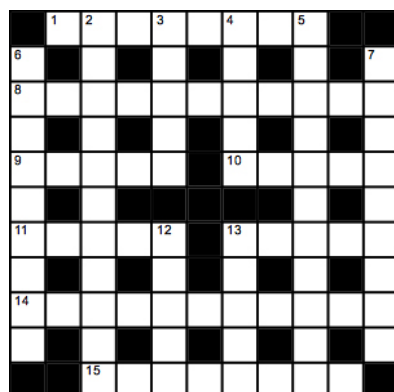
Congratulations to Jonathan Hyde for winning the January 2022 Bulletin crossword competition (right) who chose a handmade ceramic bottle of olive oil as his prize.



Sudoku



Quick Crossword



Across

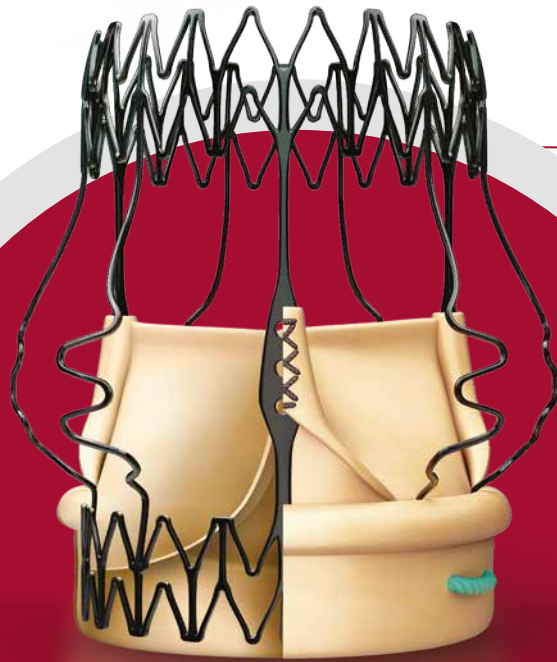
- 1 Covid? (8)
- 8 Dessert (6, 5)
- 9 Admirer (5)
- 10 Flex (5)
- 11 Painful things (5)
- 13 Facial hair (5)
- 14 Going into detail (11)
- 15 Sailing (8)

Down

- 2 Time for a 5? (11)
- 3 Restaurant (5)
- 4 Harmonious sound (5)
- 5 Ceremony (11)
- 6 Done away with (9)
- 7 Servant (9)
- 12 Philosophically aloof (5)
- 13 Animal (5)

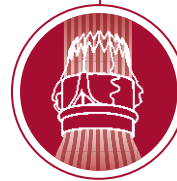
PERCEVAL™ PLUS

The Optimal Mix



Featuring the innovative
FREE Tissue Treatment

HEMODYNAMICS



Single-digit mean gradients up to 5 years¹

DURABILITY



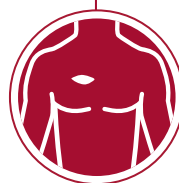
0.76% SVD² at 13 years

VALVE-IN-VALVE



Uniquely suited for Valve-in-Valve

MICS



Sutureless and collapsible to facilitate MICS



DISCOVER MORE ON
PERCEVAL PLUS

REFERENCES

1. Fischlein et al., *JTCVS* 2021
2. Lambergts, *Abstract presented at EACTS* 2021

INTENDED USE/INDICATIONS

EUROPE: Perceval/Perceval Plus prosthesis is intended to replace a damaged native aortic heart valve or a malfunctioning aortic prosthesis via open heart surgery. The prosthesis is indicated for use in adult patients suffering from aortic valve stenosis or steno-insufficiency or with a previously implanted aortic valve prosthesis that is no longer functioning adequately and requires replacement.

US: The Perceval/Perceval Plus bioprosthesis is indicated for the replacement of diseased, damaged,

or malfunctioning native or prosthetic aortic valves.

CANADA: The Perceval/Perceval Plus bioprosthesis is intended for use in patients aged ≥ 65 years in which the aortic valve pathology is in an advanced stage to require the replacement of the native or malfunctioning previously implanted prosthesis.

AUSTRALIA: Perceval prosthesis is indicated for the replacement of a diseased native or a malfunctioning prosthetic aortic valve via open heart surgery. The prosthesis is indicated in patients who meet the following criteria:

1) subjects of age ≥ 65 years 2) subjects with aortic valve stenosis or steno-insufficiency.

TOP POTENTIAL SIDE EFFECTS

Non-structural dysfunction, cardiac conduction disorders, structural valve deterioration, thromboembolism.

MRI conditional

For professional use. Instructions for Use are available upon request through the manufacturer's website. Not approved in all geographies. Follow your labeling.



CC-MK-00114 B

Manufactured by:

Corcym S.r.l.
Via Crescentino sn
13040 Saluggia (VC) Italy
Tel: +39 0161 487800

Corcym S.r.l. previously Sorin Group Italia S.r.l.

Corcym Canada Corp.
5005 North Fraser Way
Burnaby, BC V5J 5M1 Canada
Tel: +604 412-5650

Corcym Canada Corp. previously LivaNova Canada Corp.

ABBOTT MECHANICAL HEART VALVES

Regent, Masters HP and Masters

AORTIC VALVE



MITRAL VALVE

IMPLANT CONFIDENTLY.

CAUTION: This product is intended for use by or under the direction of a physician. Prior to use, reference the Instructions for Use, inside the product carton (when available) or at eifu.abbottvascular.com or at medical.abbott/manuals for more detailed information on Indications, Contraindications, Warnings, Precautions and Adverse Events.

This material is intended for use with healthcare professionals only. Data on File at Abbott. Information contained herein for DISTRIBUTION in Europe, Middle East and Africa ONLY. Check the regulatory status of the device in areas where CE marking is not the regulation in force.

Abbott International BVBA

Park Lane, Culliganlaan 2B, 1831 Diegem, Belgium, Tel: 32.2.714.14.11

™ Indicates a trademark of the Abbott Group of Companies.

www.cardiovascular.abbott

©2021 Abbott. All rights reserved. 9-EH-1-12392-01 06-202



Abbott