

Perfusionist



Quarterly publication of
The Society of Clinical Perfusion Scientists
of Great Britain and Ireland

Volume 50, Number 1
January-March 2026

Medtronic in ECLS

**Innovative
like no other**



Crescent™ Jugular Dual Lumen Catheter



Nautilus™ Smart ECMO Module



Bio-Medicus Life Support™

See the device manual for detailed information regarding the instructions for use, indications, contraindications, warnings, precautions, and potential adverse events. For further information, contact your local Medtronic representative and/or consult the Medtronic website at www.medtronic.eu. For applicable products, consult instructions for use on www.medtronic.com/manuals. Manuals can be viewed using a current version of any major internet browser. For best results, use Adobe Acrobat® Reader with the browser. This information is intended only for users in markets where Medtronic products and therapies are approved or available for use as indicated within the respective product manuals. Content on specific Medtronic products and therapies is not intended for users in markets that do not have authorization for use.

Perfusionist

Publication of The Society of Clinical Perfusion Scientists of Great Britain and Ireland

SCPS e-mail address: admin@scps.org.uk

SCPS web site: www.scps.org.uk

The contents of this publication are the property of the Society, and may not be reproduced without its permission. Published quarterly, this journal is issued free to all entitled to it. The views expressed in it are solely those of the contributors. Articles of scientific interest related to perfusion are welcome, as are letters to the Editor regarding Society and perfusion matters. They should be sent to the Editor at the address below, or e-mailed to editor@scps.com

Editor **Dr Jessica Tiplady**
Manchester Perfusion Practice &
Glenfield Hospital
Telephone: 07815 726366
Email: SCPSeditor@scps.org.uk

SOCIETY OFFICERS

President **David Chambers**

Chairman **Jacqui Simmons**
University Hospital of Coventry and Warwickshire
Telephone: 02476 96 5823
Email: SCPSchair@scps.org.uk

Secretary **Aswani Parmer**
St Barts Hospital, London
Email: SCPSsecretary@scps.org.uk

Registrar **Laura Kerr**
St Barts Hospital, London
Email: SCPSregistrar@scps.org.uk

Treasurer **Alan Rayner**
London Bridge Hospital
Email: SCPSTreasurer@scps.org.uk

C O N T E N T S

EDITORIAL	3
ACCIDENTAL HYPOTHERMIA: CASE REPORT AND PERFUSION STRATEGIES FOR SUCCESSFUL REWARM ON CPB	4-8
WHAT DOES THE SCPS M & S COMMITTEE DO?	9
OBITUARY: PROFESSOR KENNETH TAYLOR	10
EVALUATION OF LEARNING MANAGEMENT SYSTEMS (LMS) FOR DELIVERY OF CLINICAL PERFUSION EDUCATION	12-13
PERFUSION SAFETY LEAD	14
PUZZLE ANSWERS OCT-DEC 2025	15
CCPS RE-REGISTRATION 2025-26	16
CHILDRENS EASTER COMPETITION	17
INTERNATIONAL WOMEN'S DAY – SWETHA IYER INTERVIEW	18-19
CHILDREN'S EASTER COMPETITION	19
SCPS SPRING WEBINAR	20
SOLVE THE RIDDLE	21
WHO AM I	22
SUCCESSFUL CONVERSION FROM CENTRAL VENO-ARTERIAL TO VENO-VENOUS ECMO IN A PAEDIATRIC PATIENT WITH INFLUENZA A AND PVL: A CASE REPORT	24
PERFUSION WORD SCRAMBLE	25
PERFUSION SPOTLIGHT – ROBERT WILLETTS	26-27
SCPS TALENT BANK	28-29
CHILDRENS DRAWING COMPETITION WINNER	30
PERFUSION CROSSWORD PUZZLE	32
RECRUITMENT	34
GUEST EDITORS WANTED	35
EXECUTIVE COMMITTEE	36

"PERFUSIONIST"
and
**THE SOCIETY OF CLINICAL
PERFUSION SCIENTISTS**

of Great Britain and Ireland

is extremely grateful to

LivaNova

for bearing the cost of postage of each edition
of this publication.

COMMERCIAL ADVERTISING

Price on application

SITUATIONS VACANT

Price on application

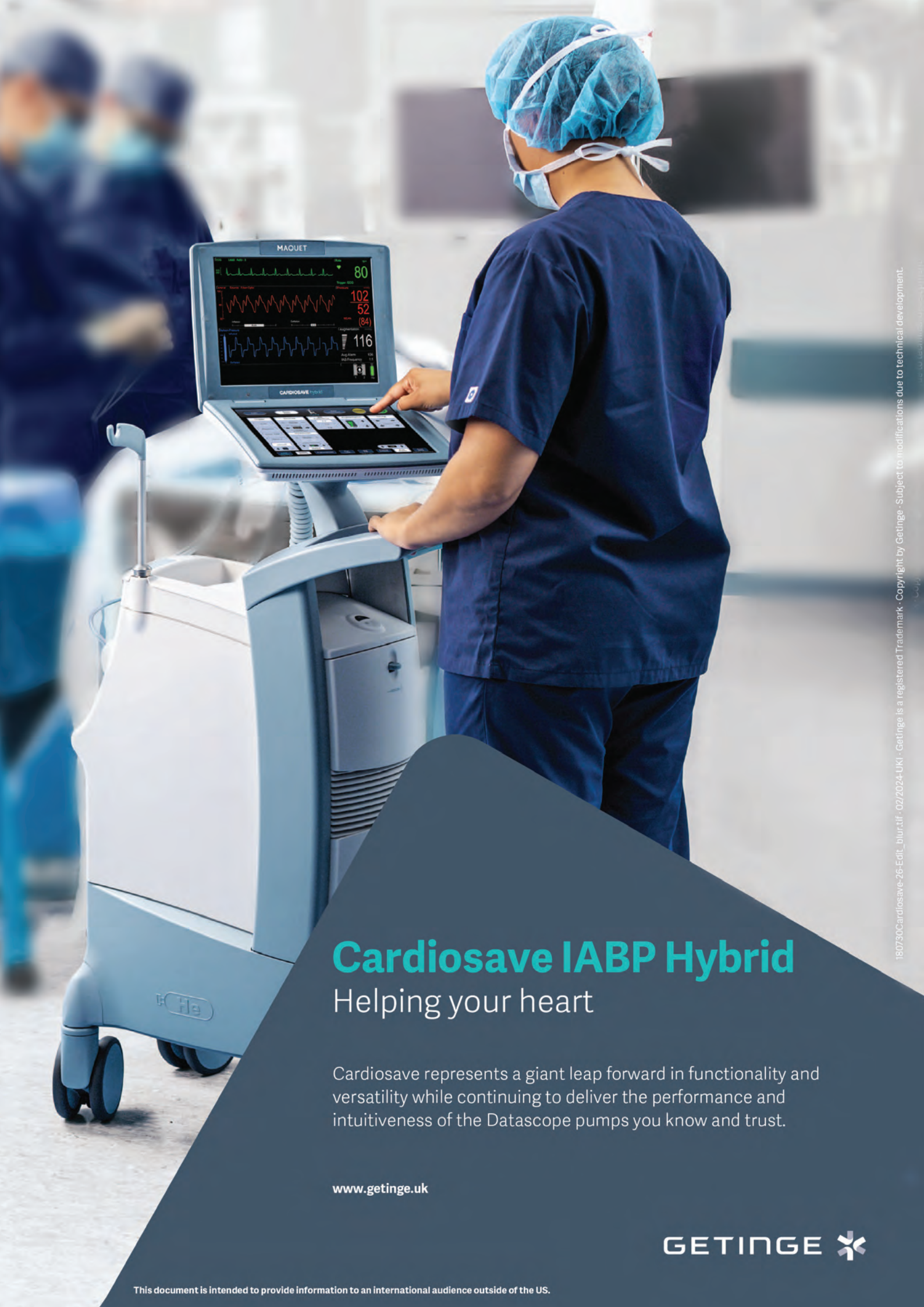
(includes entry onto Society website).
No VAT is payable on invoices.
Quarter Page (133mm x 86mm)
Half Page (133mm x 178mm)
Full page (272mm x 178mm)

For all commercial advertising enquiries
including Society Website:

Les Allen
131 Botany Road
Broadstairs
Kent
CT10 3SB
m: 07944 295613
e: perfads@icloud.com

For all general enquiries from the
membership and public:

Valerie Campbell, Administrator
Zenia Simone, Assistant Administrator
SCPS
The Royal College of Surgeons of England
38-43 Lincoln's Inn Fields
London, WC2A 3PE
t: +44 (0)20 7869 6891
e: admin@scps.org.uk



180730Cardiosave-26-Edit_blur.tif - 02/2024-UKI - Getinge is a registered Trademark - Copyright by Getinge - Subject to modifications due to technical development.

Cardiosave IABP Hybrid

Helping your heart

Cardiosave represents a giant leap forward in functionality and versatility while continuing to deliver the performance and intuitiveness of the Datascope pumps you know and trust.

www.getinge.uk

GETINGE 



Dear Reader,

Welcome to our first editorial of 2026. At the start of a new year, we often find ourselves driven by a renewed determination to fulfil fresh ambitions, whatever shape they may take. One story in particular since the start of this year proved how such ambitions can become reality. Alex Honnold free climbed one of the tallest buildings in the world, Taipei 101, in just 1 hour 31 minutes. An extraordinary example of courage, resilience, strength and determination. I hope all of your goals for this year in your perfusion careers and otherwise, exceed expectation.

Firstly, I would like to thank those individuals who put their articles forward for this first issue of 2026. As you will read, there have been a vast number of topics covered, as well as some new puzzles to solve. Congratulations to our young competition winner from the October-December issue, a prize will be sent out to you.

I have created a 'Perfusion Spotlight' to acknowledge the individuals who have served for many years and contribute significantly to our perfusion community. In this issue, the spotlight is on Mr

Robert Willetts, who has served for over 50 years at Birmingham Children's Hospital. Mr Willetts has witnessed all the change and development in Perfusion in a single centre over that time. Thank you for your longstanding contribution to paediatric perfusion in Birmingham. Please take the time to read his interview.

Continued advancement in Perfusion education has always been at the forefront of the SCPS vision. The University Hospital Southampton (UHS) has been trialling the use of a learning management system called Canvas, as an alternative to their current system, Totara Learn. Canvas has now been implemented for their current cohort of Perfusion students at UHS. The article included in this issue is a very helpful overview for centres looking into potential new learning techniques for training.

International Women's Day was celebrated on Sunday 8th March. In this issue, we delve into the career of Wythenshawe Hospital's female Consultant Cardiac Surgeon, Miss Swetha Iyer. Miss Iyer gives her experience of life as a female surgeon as well as the

positives and negatives of her role.

It is with great sadness that we learn of the death of Professor Kenneth Taylor, an influential and respected British Heart Foundation Chair of Cardiac Surgery. Professor Taylor championed our profession and spent many years researching the link between effective cardiopulmonary bypass and surgical techniques. I am certain his vast knowledge and presence in Cardiac Surgery will be deeply missed by those that worked with him.

Moving into the next quarter, I am sure we are all looking forward to warmer weather and more outdoor pursuits with our families. This spring and summer will be vibrant for football fans with the end of the Premier League and return of the World Cup. Personally, I am looking forward to a particular north London football team lifting some silverware this season...COYG!

If you want to discuss any articles in this issue or would like to submit some new material for a future publication, please get in touch (scpseditor@scps.org.uk).

Jess



Opportunity for Commercial Companies



The Editor would welcome submissions from the commercial sector on interesting subjects and commercial news of relevance to the membership of the Society.

Accidental Hypothermia: Case Report and Perfusion strategies for successful rewarm on CPB

Gabrielle Boutin, *Trainee Perfusionist*, University Hospital Southampton



ABSTRACT:

This case report describes the successful treatment of cardiopulmonary bypass (CPB) machine for treatment of Accidental Hypothermia (AH). A 55 year old male was discovered with a temperature of 21°C exhibiting ventricular fibrillation, absent of asphyxia causality. The patient was rewarmed at University Hospital Southampton using CPB and peripheral femoral cannulation. European guidelines gradient parameters were adhered, at 28°C the patient was defibrillated into sinus rhythm. At 36°C CPB was weaned and the patient was transferred to venous-venous extracorporeal membrane oxygenation (VV-ECMO) by St Thomas' retrieval team. This report focuses on perfusion strategies employed, comprising of rewarming rates, temperature gradients, anticoagulation, pharmacology, additional monitoring, and multi-disciplinary collaboration.

INTRODUCTION:

Accidental Hypothermia (AH) is the uncontrolled decrease in core body temperature below 35°C, with greater risk associated below 28°C due to ventricular arrhythmia's. Common aetiologies of AH include cold water immersion, sustained cold air exposure, and avalanche burial. Shivering, the innate thermoregulatory mechanism, is noted to stop circa 28°C, with vital signs in patients < 24°C is typically absent. Thus, the importance to rewarm these

patients in a methodical manner appropriate for each case's causality, duration of AH, and co-morbidities. If not successfully reversed patients carry serious risk of poor neurological and physical outcomes, acidosis, hypoxaemia, hypotension, and death. The United Kingdom (UK) is witnessing an increase of AH incidences, with a surging trend of weekend warriors over-estimating abilities to brace strenuous outdoor activities, economic struggles to afford heating, and rise of homelessness. From the perspective of a final-year trainee, this is the second AH case at University Hospital Southampton within ten months, hence the growing clinical relevance of this patient cohort. This Case Report covers clinical events and perfusion management considerations for this AH rewarming procedure. Key perfusion strategies are discussed, and reflections on potential systematic challenges UK hospitals face when treating these complex and unusual cases.

CASE REPORT:

Demographic and case presentation:

A 55 year old Male was discovered following prolonged cold air exposure. He was found dry, indoors with no risk of asphyxia such as drowning or strangulation.

Absence of drowning and strangulation risk plays an important factor for primary assessment for prognosis. It was assumed the patient had become

comatose by excessive alcohol consumption prior cooling. Once paramedics had arrived, here vital signs confirmed ventricular fibrillation, diabetic ketoacidosis with a blood Glucose of 36 mmol/L, and a core temperature of 21°C. Extracorporeal Cardiopulmonary Resuscitation via LUCAS externally warmed him during transit to 26°C to University Hospital Southampton. Triaged through Accident & Emergency to Cardiac Theatres, blood gases revealed diabetic ketoacidosis, with favourably low serum potassium 3.2 mmol/L, and low lactate 3.7 mmol/L considering circumstance. Preserved expression of these biomarkers is suggestive of minor myocardial damage, without significant end-organ hypoperfusion, therefore representing a positive indicator for survival and recovery. The patient was triaged through Accident & Emergency to Cardiac Theatres.

Pre-CPB and access

The patient was cachectic, with a calculated flow rate of 4.0zzzzzz9 L/min. Peripheral femoral cannulation was selected for CPB, using a 18 fr Arterial EOPA and 25fr Venous multistage cannula. As the patient carried no acquired disease, central cannulation was not required and femoral was appropriate, however this carries subsequent limitations such as drainage and flow control. Cannulation considerations to adopt include utilising accessory Luer lock on arterial lines for additional access, and

potential Left ventricular Apex venting for further ventricular support. Vacuum Assist Venous Drainage (VAVD) was required for optimal venous drainage. Once full flow was established amidst patient stability, LUCAS was deactivated, and a central venous line was cannulated. Achieving patient stability and modifying one aspect independently and systematically promoted control over this high-mortality case type.

CPB and Perfusion Management

Anticoagulation:

Anticoagulant approaches included a Heparin loading dose (300 IU/kg) alongside. 5000 IU in the primed CPB circuit. Anti-fibrinolytics, Aprotinin and Tranexamic acid, were discussed but were reserved due to risk of haemorrhage in context of coagulopathy. Activated Clotting Time (ACTs) were consistently out of range until normothermia was attained. A rewarm Full Blood Count and Thromboelastographic samples were taken at 35°C to assess coagulopathies, pre VV-ECMO conversion.

Rewarming rate and gradient parameters:

The patient was rewarmed in consideration of European guideline gradient parameters, maintaining < 10°C difference between the CPB/Heater Cooler Unit and patient, and less than < 5°C gradient between internal and surface temperature (T1:T2). Once 28°C was achieved, the patient was successfully defibrillated back into Sinus Rhythm from a single attempt and rewarmed gradually rate

of 1°C per 15 minutes to 36°C. It was agreed not to advance from this temperature, for greater metabolic control and mitigating further risk of reperfusion injury.

Electrolyte and metabolic management:

The first on CPB gas showed hypocalcaemia, hypokalaemia, and a base excess that continuously exceeded 4.5 mmol/L (-16.9 to -1.9 mmol/L, first and last respectively). These were corrected throughout the case following hospital protocol. Depressed potassium was exacerbated by insulin administration to manage DKA. Additionally, insulin carries vasodilatory effects which enhanced hypotensive haemodynamics. Here the patient required significant vasopressor support including Phenylephrine from Perfusion and Noradrenaline, Dopamine and Vasopressin from the Anaesthetic team.

To mitigate risk of reperfusion injury, Magnesium was administered for support of myocardial membrane stability. Zero-balance haemofiltration was applied to remove lactate and other waste metabolites; whilst uncertain of the extent of myocardial injury, a potassium-free solution was implemented to avoid exacerbating a problematic potassium environment. Calcium channel blockers and anti-arrhythmia medicines, Amiodarone, were previously administered pre-CPB.

Additional Monitoring and transfusion considerations

Near Infrared Spectroscopy (NIRS) were applied pre-operatively for cerebral saturations. Initial readings > 70 with incremental measures in correlation to progressive temperatures. Haemofiltration was employed throughout; an inflammatory-mediating filter could be applied for longer rewarming scenarios, or upon ECMO circuits for full inflammatory suppressed advantages. Two units of Red Blood Cells were transfused once the patient had reached 32°C, by this stage of the procedure, the patient had been stable on CPB for an hour. A cross-matched sample had been processed allowing ABO-specific transfusions over emergency O-negative products. Blood viscosity had returned to an expected consistency optimising Haemoglobin bioavailability.

Outcome and follow up:

CPB was weaned successfully at 36°C. Blood gases and electrolyte parameters were returned to acceptable ranges, with only venous saturations circa 60%. Peripheral oxygen saturations were between 88-93%, accordingly VV-ECMO support was arranged. Guys & St Thomas' ECMO retrieval team transported the patient to Royal Brompton Hospital. Neurological and cardiovascular outcomes at the time of writing, were under evaluation. Excellent teamwork was notable across multidisciplinary and multi-centre collaboration, providing this service and patient recovery.

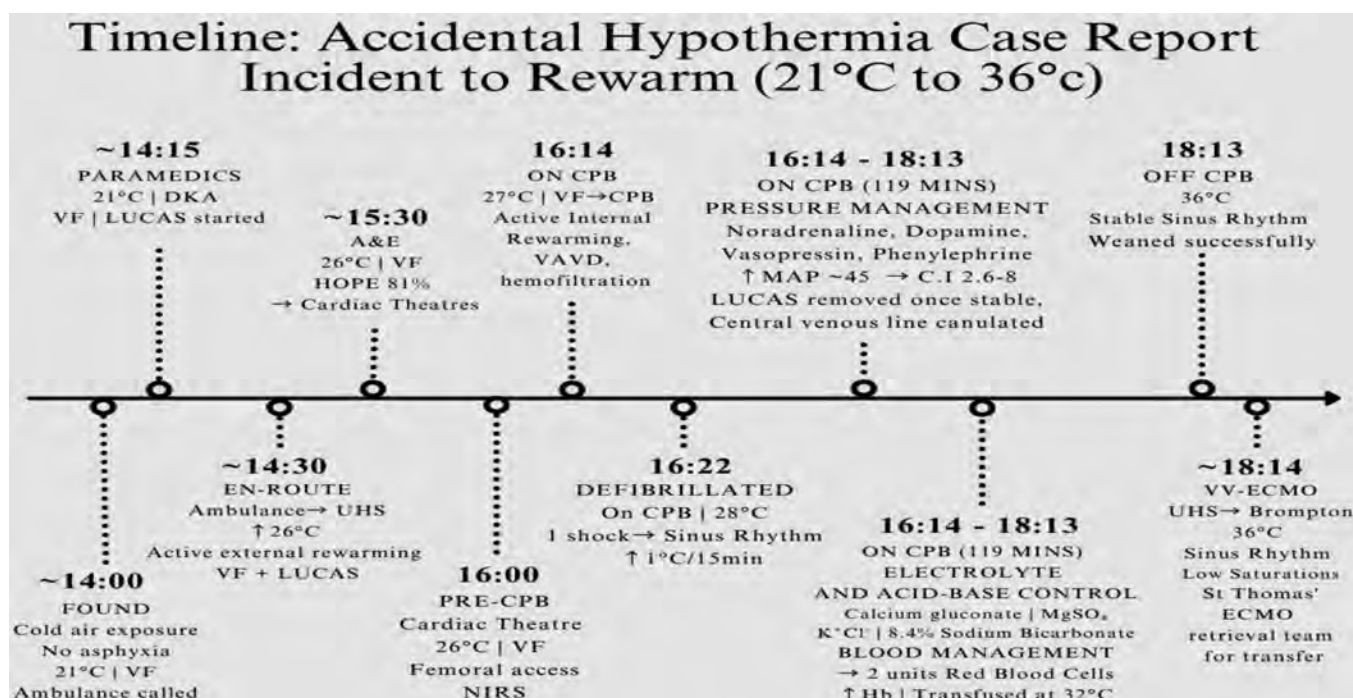


Figure 1: Timeline of events

DISCUSSION

Patient selection

The Hypothermia Outcome Prediction after ExtraCorporeal Life Support (HOPE) score is an educational-purpose calculation that provides guidance and predicted survival of AH patients^{1, 2}. Guidelines by the European Resuscitation Council suggest any HOPE score above 10% represents a satisfactory probability of survival and thus warrants Extracorporeal rewarming². The patient described scored 81% hence progressing them onto CPB for rewarming, see Figure 2 (Figure 2)¹. Arguably the most important variable relies on low serum potassium, with values necessitating below 12 mmol/L for support of favourable prognosis, demonstrating aversion from cellular membrane disintegrate or myocardial necrosis. Notably for this patient, confirmation of a non-asphyxia aetiology aided recovery; in circumstances where cardiac arrest follows asphyxia, neurological and pulmonary outcomes are associated with poor prognosis. Evidence of drowning as a causality may alone prohibit CPB rewarming. Understanding this patients indoor and dry environment absent of a compromised airway permitted treatment. These factors could be collected as a pre-CPB AH checklist in future protocols.

Acid-Base Management

Although not documented in the case report, approach to acid-base management during rewarming involve comparable strategies for gradual rewarming in cases of Deep Hypothermic Circulatory Arrest and dissections. These involve pH-stat, blood gas corrected to patient temperature highlighting comparative hypercapnia thus vasodilation, and Alpha-stat, uncorrected temperature and maintained pH 7.4 for preserving cerebrovascular autoregulatory mechanisms. For patients below moderate hypothermia, < 25°C, pH-stat could maximise cerebral perfusion³. Ideally once rewarming steadily or approaching mild hypothermia 32–35°C alpha-stat strategy should be continued⁴. Utility of pH-stat and alpha-stat both carry merit concerning control during vulnerable metabolic states and reperfusion, use of either approach is dependent upon trust protocol.

Reperfusion injury

Guideline-defined gradient parameters evade cerebral oxygen supply-demand

mismatch during rewarm, meanwhile help to negate hazardous CPB rewarming. While not applicable for this patient who was ~27°C once on CPB; there are few novel approaches for a slower approach, a conservative 1°C per hour. This is applicable for individuals with severe acidosis, or prolonged arrest, and typically experienced greater duration of AH. This slower approach is believed to attenuate reperfusion injury with several windows offering checkpoints for corrections. Still, this is an area of debate between opposing retrospective studies^{5,6}. This progressive correction approach was adopted in our case, with controlled metabolic recovery from -16.9 to 1.9 mmol/L. Mitigation of reperfusion injury was furthered by the adopted approach to keep the patient hypo-pyrexia, 36°C, to reduce risk of cerebral hyperthermia and potentially causing secondary neurological insult.

Systemic considerations for a UK Protocol

This case, and similar cases across the UK, highlight the absence of a formalised nationally recognised UK protocol for rewarming AH on CPB. Notably, European guidelines deliver rigorous evidence and comprehensive strategies but fail to account for reality of UK systems such as varied ambulance and emergency retrieval logistics, progression for ECMO transfer, and varied experienced across staffing in this rare but not infrequent patient group. From personal research I have found most centres with > 4 theatres have

devised a local protocol in response to encounters with this patient type. Possibly leaving teams to manage later cases with ambiguity and without a structured and validated framework. If the patient is accepted, other centres lead based upon surgeon direction. Collaborative development for a prospective UK pathway, expanding to pre-hospital notification with direct Cardiac unit entry, defined cannulation strategy, perfusion-specific parameters and strategies, and plausible ECMO criteria, could help reduce clinical uncertainty and improve patient safety and consistency in this discipline across centres.

CONCLUSION

Overall, the fundamental principle for CPB rewarming in AH is for methodical action tackling one variable at a time. Unlike elective procedures, where our main objective as a Perfusionist involves safe, controlled rewarming with optimal reperfusion and gas exchange, haemodynamic stability and regular rhythm. The absence of complex cardiac surgery should not be mistaken for a simple case. Moreover, perfusion techniques required for a safe and gradual rewarm are accessible and replicable in many centres, and do not require specialised equipment other than CPB.

Where individual centres face short falls in AH experience or resources, a multidisciplinary and multi-centre collaboration can amend this, as seen in this case report. Co-ordination between

HOPE
Hypothermia Outcome Prediction after ECLS

Estimation of the survival probability using HOPE

HOPE provides a prediction of the survival probability in hypothermic cardiac arrest patients undergoing Extra-Corporeal Life Support (ECLS) rewarming.

HOPE is the result of an international collaborative project initiated and led by the Emergency Department of the University Hospital of Lausanne, Switzerland. The survival probabilities range from 0% to 100% chance of survival to hospital discharge.

A cutoff of 10% to decide which hypothermic patients in cardiac arrest would benefit or not from ECLS rewarming was evaluated in an external validation study. The negative predictive value of a HOPE probability < 10% was of 97%, and the AUC under the ROC curve was of 0.825 which suggest excellent discrimination. Of note, one is of course free to use a different cut-off than the proposed threshold of 10% for different subgroups of the population (e.g. for children).

Hypothermia should be considered as a likely cause of CA for an avalanche victim buried > 60 minutes and with a witnessed CA. In this case, the HOPE score should be calculated using the non-asphyxia scenario. If there is a possibility that an avalanche victim may not have been asphyxiated despite full burial, calculating the HOPE score using the non-asphyxia scenario will decrease the risk of underestimating the probability of survival after rewarming.

Estimates are desirable if variables are not known (e.g. age, CPR duration and temperature).

Age (in years) 55

Sex ☒ Male ☐ Female

Hypothermia ☒ With asphyxia (head fully covered by water or snow) AND in cardiac arrest at extrication ☐ Without asphyxia (immersion, outdoor or indoor cold exposure)

CPR duration (min) 90

Serum Potassium (mmol/L) 3.2

Temperature scale ☒ Celsius ☐ Fahrenheit

Temperature 21

The HOPE survival probability is : 81 %

Reset Calculate

Figure 2: HOPE calculation; for education and research purposes¹

ambulance services, emergency medicine, cardiac theatres, and supplementary ECMO retrieval were all active for successful patient's management.

European guidelines offer a foundation of evidence-based strategies and essential approaches to adopt. Still, a UK-specific protocol that encompasses the current retrieval system, patient demographics and hospital variabilities, remains nonexistent. For UK Perfusion and Cardiac critical care community, a structured protocol could help bridge current gaps and improve patient outcomes.

Further reading:

School children Dragon Boat Race – Norway

Swedish Norwegian co-operation in the treatment of three hypothermia victims: a case report

Anders Wetting Carlsen, Nils K Skjaervold, Nils Johan Berg, Øystein Karlsen, Eli Gunnarson, Alexander Wahba

Scand J Trauma Resusc Emerg Med. 2017 Jul 17;25(1):73.

doi: 10.1186/s13049-017-0418-5.

Anna Bågenholm — The

Avalanche/Ice Case – Norway

Gilbert M, Busund R, Skagseth A, Nilsen PÅ, Søbø JP. Resuscitation from accidental hypothermia of 13.7°C with circulatory arrest. *Lancet*.

2000;355(9201):375–376. doi: 10.1016/S0140-6736(00)01021-7

Severe accidental hypothermia treated with cardiopulmonary bypass – United Kingdom

Mohammed Akil Dilawar Gani, Balraj Singh Jagdev, Asgher Champs, Uday Dandekar

BMJ Case Rep. 2016 Sep 29;2016:bcr2016216371. doi: 10.1136/bcr-2016-216371

REFERENCES

1. Pasquier, M. *HOPE: Hypothermia Outcome Prediction after ECLS*. 2026 [cited 2026; Available from: <https://www.hypothermiascore.org/>.

2. Lott, C., et al., *European Resuscitation Council Guidelines 2025 Special Circumstances in Resuscitation*. Resuscitation, 2025. **215**.

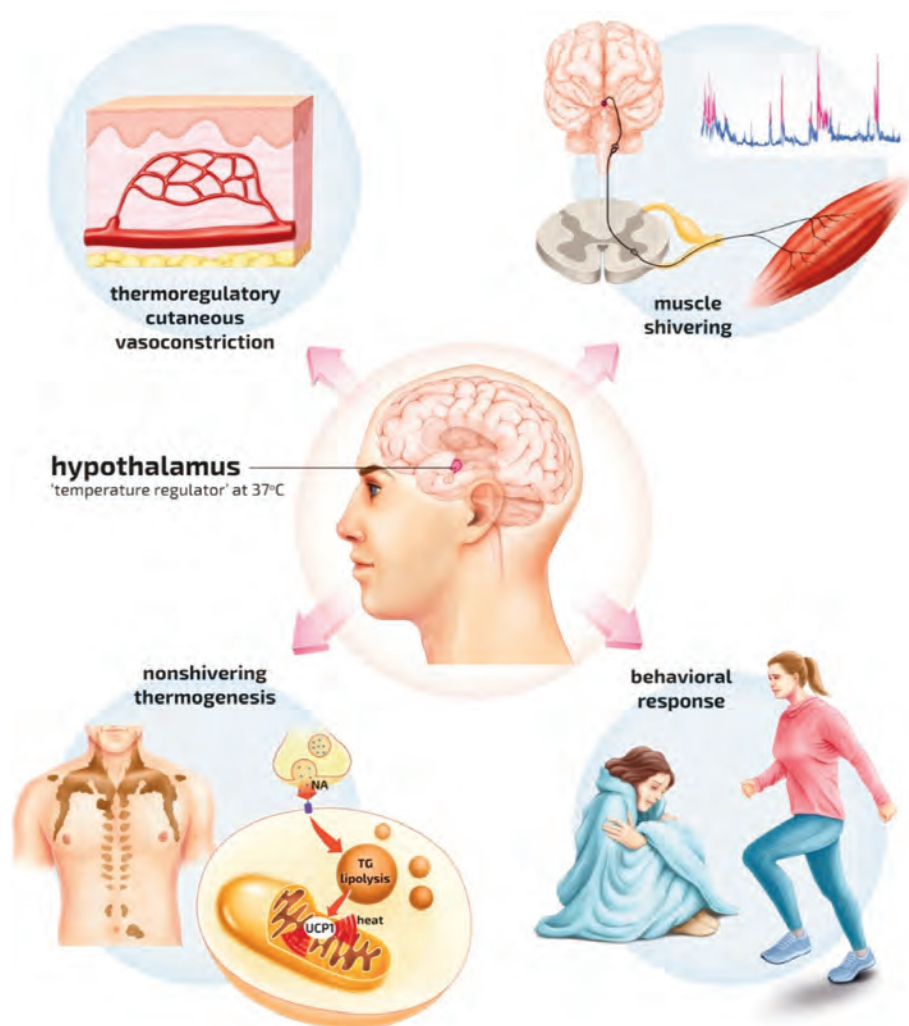
3. Paal, P., et al., *Accidental Hypothermia: 2021 Update*. International Journal of Environmental Research and Public Health, 2022. **19**(1): p. 501.

4. Duebener, L.F., et al., *Effects of pH management during deep hypothermic bypass on cerebral microcirculation: alpha-stat versus pH-stat*. Circulation, 2002. **106**(12 Suppl 1): p. I103-8.

5. Taylor, E.E., et al., *Active Intravascular Rewarming for Hypothermia Associated with Traumatic Injury: Early Experience with a New Technique*. Baylor University Medical Center Proceedings, 2007. **20**(2): p. 2-8.

6. Watanabe, M., et al., *Impact of rewarming rate on the mortality of patients with accidental hypothermia: analysis of data from the J-Point registry*. Scand J Trauma Resusc Emerg Med, 2019. **27**(1): p. 105.

APPENDICES





"Pennine Way hill runners with hypothermia rescued from hut" <https://www.bbc.co.uk/news/uk-scotland-south-scotland-64371848> January 2023



"Snowdonia: Walker with hypothermia airlifted to hospital" <https://www.bbc.co.uk/news/uk-wales-60380057> February 2022



The Times – "Hypothermia warning for cold water swimmers" <https://www.thetimes.com/uk/healthcare/article/hypothermia-warning-for-cold-waterswimmers-6dgt6q6x9> February 2022



Anna Bågenholm — The Avalanche/Ice Case - Norway
"Rescuers worked frantically to save Anna Bågenholm from a hole in the ice of a mountain stream" <https://edition.cnn.com/2009/HEALTH/10/12/cheating.death.bagenholm/> May 1999



What does the SCPS M & S Committee do?



Laura Kerr, M & S Chair

"The Committee is responsible for the organisation and delivery of the Society's annual and other scientific meetings, a remit that now permanently includes the SCPS Spring Webinar. Acting collectively, the Committee oversees the strategic planning, scientific content, and operational execution of all SCPS events.

The Chair serves as the primary liaison with venues and external stakeholders, while overseeing the organisation of all SCPS scientific meetings. The Scientific Agenda Officers are responsible for the development and delivery of the scientific programme across all SCPS meetings, including the collection of abstracts, and engagement with prospective speakers and sponsors. The Industry Officers coordinate and liaise with industry partners in relation to sponsorship packages, exhibition stands, workshops, and advertising opportunities. The SCPS Treasurer works closely with the Committee to provide financial oversight and ensure the fiscal viability of meetings, supported throughout by the SCPS Administrators to ensure the efficient and effective delivery of all events."

Benchmark Monitoring of up to 22 vital patient parameters

The CDI OneView System is Terumo's new perfusion innovation

Featuring an elegant new design and up to 22 Goal Directed Perfusion parameters, the CDI OneView System offers real-time insight for real-time decision making. It gives perfusionists the precision, control, and confidence they demand for optimal patient management.

Thoughtfully created with a focus on improved patient outcomes the CDI OneView System is superior insight on display.^{1,2}

To learn more about the CDI OneView Monitoring System visit:
www.CDI-OneView-Monitoring-System/index



TERUMO
CARDIOVASCULAR

1. Ranucci, M, et al. Goal-directed perfusion to reduce acute kidney injury: A randomized trial. The Journal of Thoracic and Cardiovascular Surgery. 2018 Nov;156(5):1918-1927.

2. Condello, I, et al. Association between oxygen delivery and cardiac index with hyperlactatemia during cardiopulmonary bypass. JTCVS Techniques. 2020;Vol 2:92-99.

©2025 Terumo Europe N.V. CV482GB 09.25 SK-I(09.25)E. Company names and brand names used herein/hereon are trademarks or registered trademarks of TERUMO CORPORATION, its affiliates, or unrelated third parties. Refer to this device's Instructions For Use (IFU) for full prescribing information, including indications, contraindications, warnings, precautions and adverse events.

Obituary: Professor Kenneth Taylor

Reproduced with the permission from the SCTS

Our founder and Editor of the *Perfusionist* in 1977, Dr Dereck Wheeldon, has informed us of the sad passing of Professor Kenneth Taylor.

Throughout his distinguished career, Professor Taylor made an outstanding contribution to the field of perfusion. From publishing his seminal textbook on *Cardiopulmonary Bypass* in 1986 to establishing the annual Hammersmith BHF workshops that helped drive innovation in perfusion practice, his work had a lasting impact on the profession.

Professor Taylor assembled three perfusionists; Dereck Wheeldon, Mark Kuruz and Terry Gourlay to make up the first editorial board of the internationally recognised journal, *Perfusion*. Professor Taylor was a dedicated advocate for the profession and played a significant role in advancing and improving perfusion practice for future generations.

Professor Kenneth “Ken” Taylor MB ChB MD FRCS FRCS FESC FETCS FSA

British Heart Foundation Professor of Cardiac Surgery, Imperial College London

Died peacefully on 1 February 2026.

Professor Kenneth MacDonald “Ken” Taylor, one of Britain’s most distinguished cardiac surgeons, pioneering academic, and internationally respected authority on cardiopulmonary bypass, died peacefully on 1 February 2026. He was British Heart Foundation Professor of Cardiac Surgery at Imperial College, University of London, and Clinical Director of Cardiac Services at Hammersmith Hospital, where he played a central role in shaping modern cardiac surgery in the United Kingdom and beyond.

Professor Taylor devoted his life to advancing the science and practice of cardiac surgery, combining exceptional clinical skill with an unwavering commitment to research, teaching, and leadership. His career spanned decades of remarkable achievement, during which he helped transform cardiac surgical practice and improve outcomes for countless patients worldwide.

Born in Scotland in 1947, Professor Taylor studied medicine at the University of Glasgow, graduating in 1970. He trained in general surgery at the Western Infirmary in Glasgow under the renowned surgeon Sir Andrew Kay, before embarking on specialist training in Cardiothoracic surgery at the Royal Infirmary, Glasgow, in 1974. His exceptional ability and promise were recognised early, and in 1979 he was appointed Consultant and Senior Lecturer in Cardiac Surgery. Just four years later, in 1983, he was invited to London to take up the prestigious British Heart Foundation Chair of Cardiac Surgery initially at the Royal Post Graduate Medical School and then due to reorganisation the Chair was under the

aegis of Imperial College London, a role in which he would make an enduring impact.

Professor Taylor’s research focused particularly on the pathophysiology of cardiopulmonary bypass and the use of the heart–lung machine during open-heart surgery. His work deepened understanding of the biological effects of extracorporeal circulation and contributed significantly to safer and more effective surgical techniques. A prolific scholar, he authored more than 300 scientific papers and over 100 book chapters, reflecting both the breadth and depth of his expertise. He also served as Editor Emeritus of the international journal *Perfusion* and contributed to the editorial boards of several leading journals, helping guide the direction of cardiac surgical research worldwide.

His leadership extended well beyond his own institution. Professor Taylor served on numerous Royal College and Department of Health committees and played a central role in advancing national and international cardiac surgery standards. He was Director of the UK Heart Valve Registry and later Chairman of the European Cardiothoracic Surgery Registry, as well as Co-Chair of the International Cardiac Surgery Database Committee. He also served as a Trustee and Council member of the British Heart Foundation, reflecting his lifelong commitment to advancing cardiovascular care and research.

Professor Taylor’s international standing was reflected in numerous honours and recognitions. He was an Honorary Member of the American Association for Thoracic Surgery, the American Academy of Cardiovascular Perfusion, and the UK Society of Perfusionists, among others. In 1998, he was named Honoured Guest of the American Association for Thoracic Surgery, and he was recognised as an



Honorary Alumnus of the Cardiothoracic surgical department at the Cleveland Clinic. He was also invited as Visiting Professor to many of the world’s leading universities and medical schools, where he inspired colleagues and trainees alike.

At Imperial College and Hammersmith Hospital, Professor Taylor was not only a pioneering surgeon and academic leader but also a deeply respected mentor. He trained and influenced generations of cardiac surgeons, perfusionists, and researchers, many of whom have gone on to become leaders in their own right. His clarity of thought, intellectual rigour, and unwavering dedication to excellence set the highest standards for those around him.

Colleagues remember him as a man of integrity, humility, and quiet authority. He was known for his thoughtful judgment, generosity with his knowledge, and steadfast commitment to improving patient care through science and innovation. His influence extended across continents, institutions, and disciplines, leaving a profound and lasting legacy.

Professor Ken Taylor’s death marks the passing of one of the great figures in modern cardiac surgery. His contributions have saved lives, advanced scientific understanding, and shaped the practice of cardiac surgery for generations to come. He will be remembered with deep respect, gratitude, and admiration by his colleagues, students, friends, and the wider international medical community.

His legacy lives on in the countless patients whose lives were improved by his work, and in the many clinicians and scientists he inspired throughout his remarkable career.

BHF Tribute

<https://www.bhf.org.uk/what-we-do/news-from-the-bhf/news-archive/2026/february/tribute-to-professor-ken-taylor>



Lifemotion® System Made to Evolve

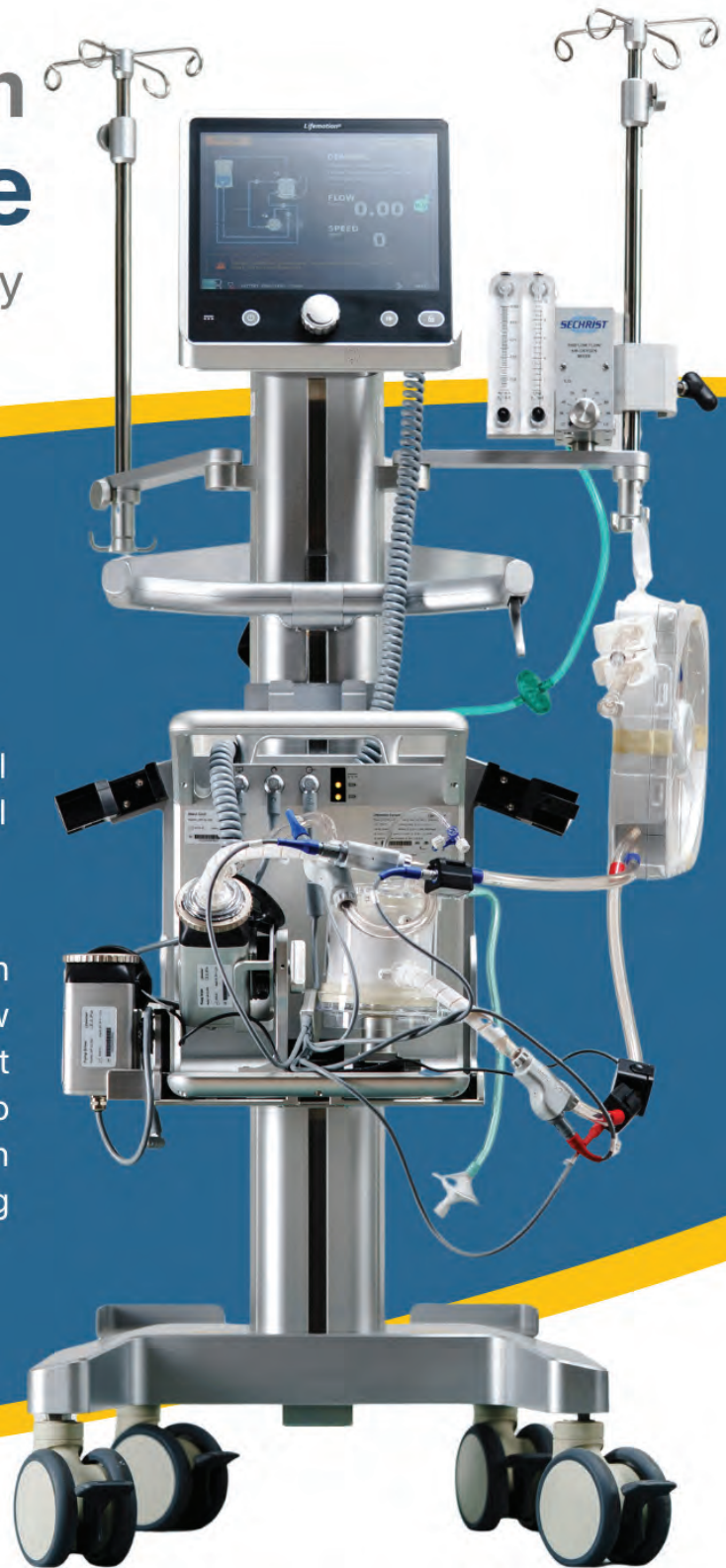
Designed for the ECMO Journey

• Safe • Simple • Smart

Technology developed to support clinical teams across every stage of extracorporeal life support.

Lifemotion is developed with a focus on usability, reliability, and clinical workflow integration. From system setup to patient monitoring, the platform is designed to support multidisciplinary ECMO teams in high-acuity environments while aligning with evolving clinical practices.

- Intuitive user interface
- Integrated monitoring capabilities
- Designed around clinical workflow
- Developed in collaboration with ECMO specialists



Create Value for All

www.lifemotionmedical.com

Evaluation of learning management systems (LMS) for delivery of Clinical Perfusion education

Claire Sweeting, University Hospital Southampton

BACKGROUND

At University Hospital Southampton (UHS), we wanted to implement an active learning strategy into our training programme to supplement our traditional clinical education. Active learning is a student focused pedagogy where students actively engage with the learning material. In the wider educational literature, this has been shown to improve outcomes and professional skills, such as, retention of knowledge, communication and problem-solving (Bruner et al 2022). However, perfusion-specific literature is sparse (Figure 1). Most concentrate on high fidelity simulation, which we are unable to offer at our centre.

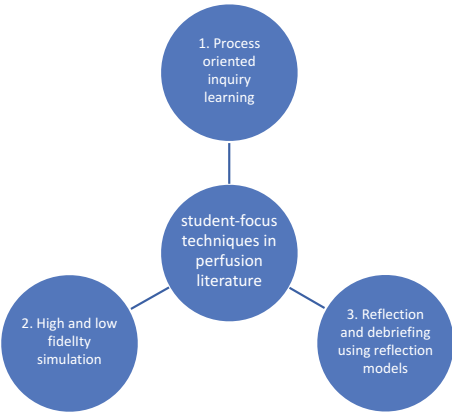


Figure 1. Student focused learning approaches in the Perfusion literature (Kim & Gerrits 2025, Neal et al 2024)

As an alternative, we wanted to investigate using a learning management system (LMS) to provide content and activities to support student-centred learning. In addition, an LMS could be useful to create a supportive consistent collaborative environment asynchronously between the educator and student in the context of different working patterns (Furqon et al 2017). student-focus techniques in perfusion

However, the usability of an LMS is important factor for the learning experience and acceptance of technology. A feasible proximate

measure of usability is user preference assessed through interviews and surveys of the ability of the learner/educator to understand, learn and operate the LMS (Figure 2) (Dimitrijević & Devedžić 2020).

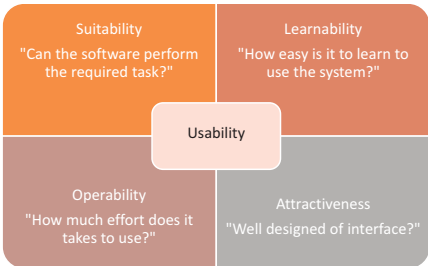


Figure 2. Factors of usability for LMSs (Basaran & Khalleef 2020)

METHOD

A review of the UK government's digital marketplace for an LMS with good functionality and reliability was undertaken. Additional criteria included ease of use requiring no additional cost or technical maintenance. There are a few free platforms including Saki, Camillio and Canvas. However, we identified Canvas free for teachers as a viable possibility, which was then evaluated against the UHS learning platform (Totara Learn). To do this a test lesson with different functions and media was created and uploaded to both systems. Five users agreed to complete the lesson. Their preferences and feedback were recorded during a semi-structured interview to determine usability. The qualitative data was analysed using a thematic inductive analysis. Feedback was coded using commonality in statements made. Further analysis was done to determine if any main themes emerged. The project focused on four questions given in Table 1.

Table 1. Focus Questions

Focus Questions
Does the LMS deliver student centred learning?
Did it meet the requirement of the lesson plan?
Which did the users prefer?
Which had a better experience?

REVIEW

Does the LMS deliver student centred learning?

It was found that both LMS delivered student centred approach to learning using collaboration and communication tools. Canvas clearly displays communication and collaboration tools, whilst with Totara Learn this was less visible. Totara Learn gives prominence to performance, course completion and badges. This may be explained by the difference in educational goals. Totara Learn is described as an LMS that incorporates organisational hierarchy and management into a learning and performance system (Think Learning 2024). Whereas the premise of Canvas is to provide blended student-centred approach to learning concentrating on an interactive and engaging learning experience (Kouroupetroglou et al 2019).

Did it meet the requirement of the lesson plan?

Only Canvas was able to meet the requirement of the lesson plan. Both LMSs had versatile functionality through different software functions and learning tool integration for external Apps e.g. Padlet and Canva. Both LMSs enabled transformative practice with the ability to provide a peer-peer assessment. However, only Canvas was able to fulfil our long-term goal by providing an e-portfolio to help transfer knowledge to practice. Totara Learn must meet the needs for mandatory training and discipline specific learning for 15000 learners at UHS, therefore, access and uploads needs to be regulated (Think Learning 2024).

Which LMS did the users prefer? Overall, users preferred Canvas due to improved operability with a better interface design, quicker access to learning and ease of navigation (Table 2). Moreover, users expressed a wish to use an LMS

dedicated to Clinical Perfusion education. This was influenced by the presence of other specialities' learning alongside mandatory training on the dashboard affecting how Totara Learn was perceived. This led some users to describe it as prescriptive and cluttered.

Table 2. User preference of LMS

	User 1	User 2	User 3	User 4	User 5
Access to learning	Canvas	Canvas	Canvas	Canvas	Canvas
Design of interface	Canvas	Canvas	Canvas	Canvas/Totara	Canvas
Ease of navigation	Canvas	Canvas	Canvas	Canvas	Canvas
Multimedia	Canvas/Totara	Canvas/Totara	Canvas	Canvas/Totara	Canvas/Totara

Which LMS provided a better experience for users?

Quick, easy and immediate access to learning materials was important to users. Canvas was preferred as it provided simplicity of design, clearly displaying communication tools, coherent structure, good font size, well displayed graphics and learning tools making it easy to navigate through. The converse was true of Totara Learn, which caused frustration and uncertainty for users. Uploading and creating content using Totara Learn was less intuitive. The system took a greater investment of time to learn. Consequently, at the time of implementation not all features functioned. Canvas was more efficient, and it was easier to use when creating and managing content. Consequently, this will have directly influenced user's experience. Usability and ease of navigation are vital to provide a valuable learning experience. Good usability and navigation tools support completion of learning activities, motivation and achievement of goals. With poor navigation and usability converse is true as it increases the cognitive workload (Arshad *et al* 2016).

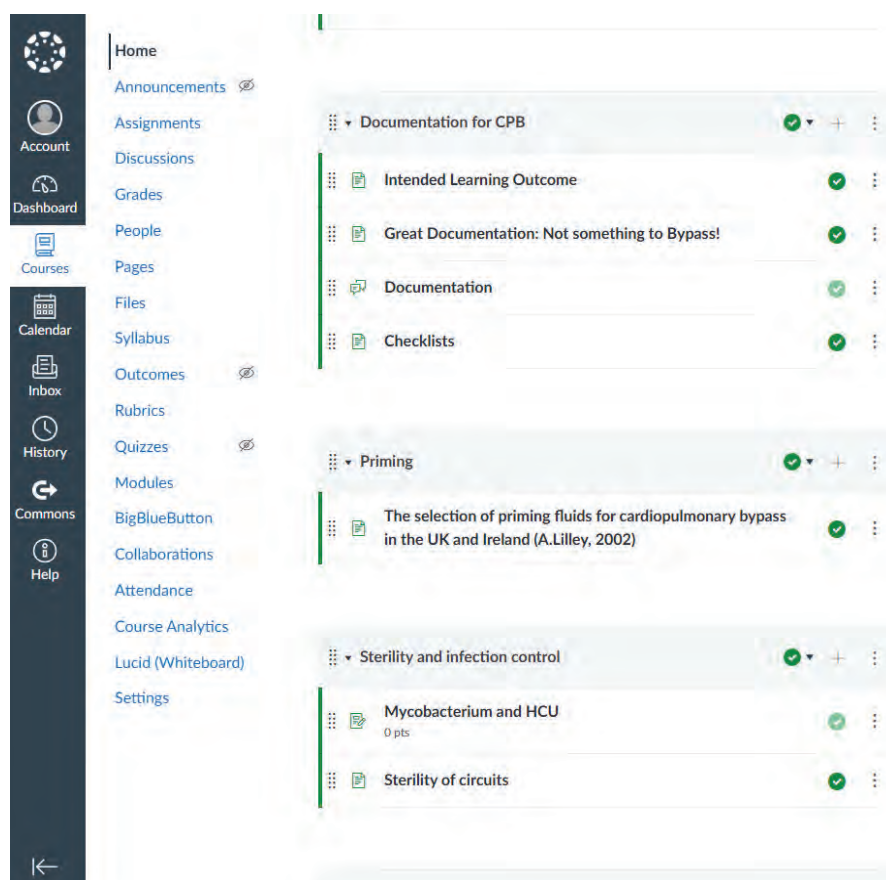


Figure 3. Our Canvas display for introduction to CPB module

CONCLUSION

It was concluded that Canvas was the most effective LMS for delivery of our learning, meeting the

educational goals with greater user satisfaction. At UHS we have been using Canvas with our current cohort of students for a year. It has become a valuable resource helping us to move away from instructor led and to a student focused programme using active learning. We have found we have been better able to manage content, provide pre-reading and set activities asynchronously ensuring a

continuity of education shown in Figure 3. Whilst teaching in an authentic environment can be challenging, our experience of using an LMS helps balance the need for patient safety and student focus learning as part of a multimodal approach to education.

REFERENCES

Arshad, R., Majeed, A., Afzal, H., Muzammal, M., & Rahman, A. (2016). Evaluation of navigational aspects of Moodle. *International Journal of Advanced Computer Science and Applications*, 7(3): 287-298. <https://doi.org/10.14569/ijacsa.2016.070>

342 Basaran S & Mohammed R, K, H (2020) Usability Evaluation of Open-Source Learning Management Systems. *International Journal of Advanced Computer Science and Applications (IJACSA)*. 11, (6): 400-410.

Bruner J, Affoo R & Dietsch A. M (2022). Active learning and student achievement: A matter of space, experiences, or pedagogy. *Journal of Learning Spaces*. 11 (1): 58-78.

Dimitrijević S & Devedžić V (2020). Usability Evaluation in Selecting Educational Technology. *International Conference on Information Technology and Development of Education – ITRO 2020*.

Furqon M, Sinaga P, Liliarsari L and Septem R. P (2023). The Impact of Learning Management System (LMS) Usage on Students. *TEM Journal*; 12 (2): 1082-1089 DOI: 10.18421/TEM122-54.

Kim C and Gerrits R (2025). Developing active learning activities for didactic perfusion courses. *Perfusion*; 40 (7): 1559-1566. Doi:10.1177/02676591251314930

Kouroupetroglou, G., Salinas, V., Deligiorgi, D., & Miesenberger, K. (2019). *InSIDE: Including students with impairments in Distance Education. InSIDE project*. <https://www.inside-project.org/>

Neal JR, Blau C & Colby C (2024) Adapting and applying student centred learning in a perfusion clinical rotation. *Journal of Extracorporeal technology* 56: 71-76.

Think Learning. (2024, March 18). University Hospital Southampton NHS Foundation Trust. <https://www.think-learning.com/casestudies/southampton-nhs-foundation-trust/>



PERFUSION SAFETY LEAD

Society of Clinical Perfusion Scientists (SCPS)

CORE PURPOSE

- Champion patient safety within the perfusion service.
- Lead systems, culture, and learning that prevent harm and promote excellence.

1

PATIENT SAFETY LEADERSHIP

- Visible safety advocate.
- Embeds just culture and psychological safety.
- Leads safety briefings and debriefings.

3

SAFETY COMMITTEE ENGAGEMENT

- Escalates safety issues to the Safety Committee.
- Disseminates reports from the SCPS website locally.
- Serves as the vital link between the Safety Committee and the individual Perfusion Department.

5

GOVERNANCE & COMPLIANCE

- Ensures adherence to SCPS standards and relevant national guidance.
- Maintains SOPs, checklists, and emergency protocols.
- Supports audits and quality reviews.

2

INCIDENT MANAGEMENT

- Oversees Datix (or equivalent) incident reporting.
- Promotes NCR implementation and evaluates trends.
- Coordinates investigations aligned with PSIRF and human factors principles.
- Encourages feedback, learning events and action tracking.

4

RISK MANAGEMENT

- Maintains the perfusion risk register.
- Conducts risk assessments for new equipment, techniques, or processes.
- Identifies and escalates emerging risks.

6

TRAINING & COMPETENCY

- Coordinates safety-related training for the perfusion team.
- Oversees emergency drills and human factors education.
- Embeds a strong safety focus in induction and onboarding.

ESSENTIAL SKILLS

- Strong clinical perfusion knowledge.
- Human factors awareness.
- Analytical approach to incidents and risk.
- Clear, confident communicator.
- Organised, proactive, and detail-focused.

KEY DELIVERABLES

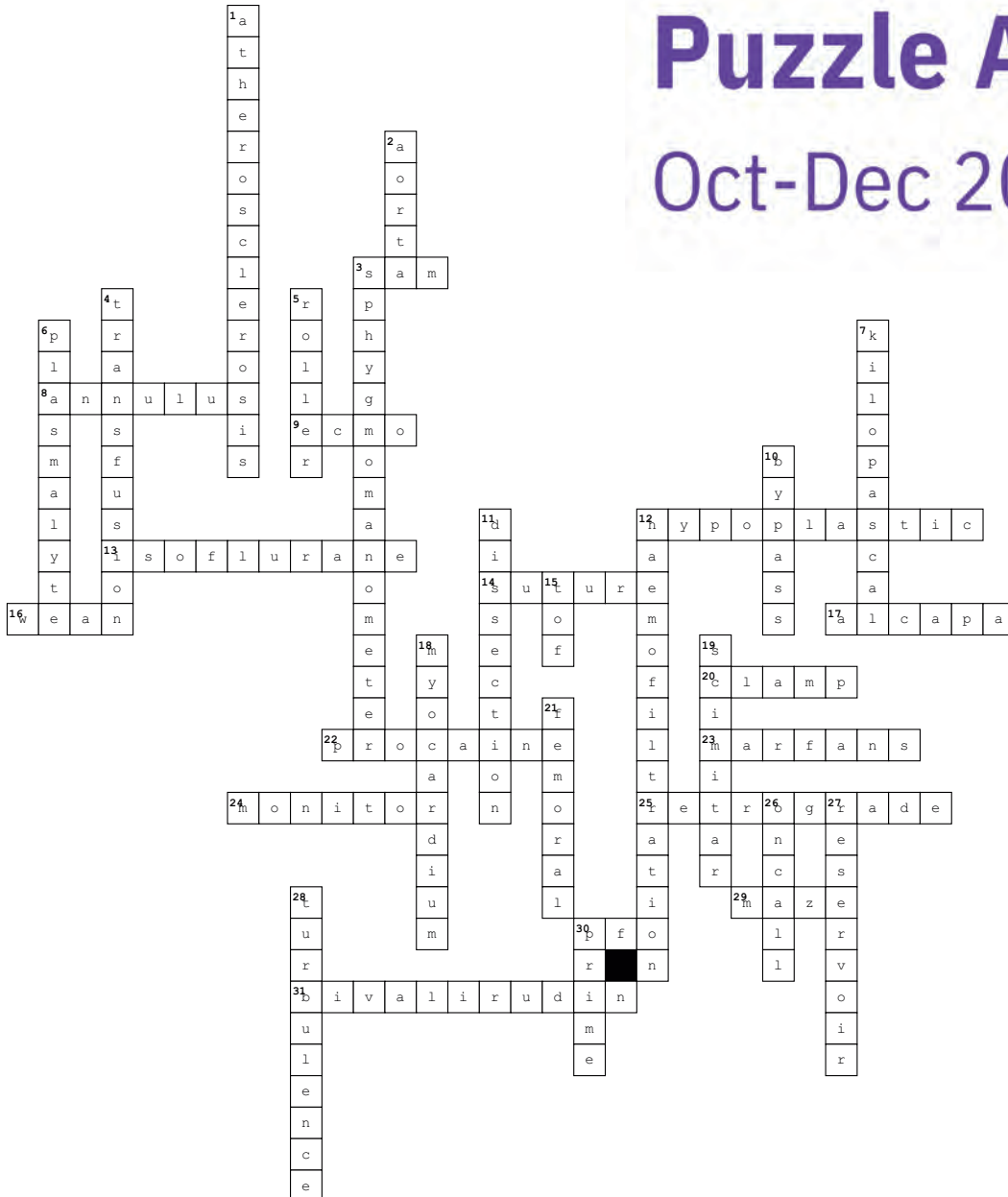
- Up-to-date perfusion risk register.
- Monthly/Quarterly safety summary
- Regular communication with the Safety Committee.
- Strong reporting culture (NCR/DATIX).
- Current SOPs and emergency protocols.

LOCAL IMPLEMENTATION

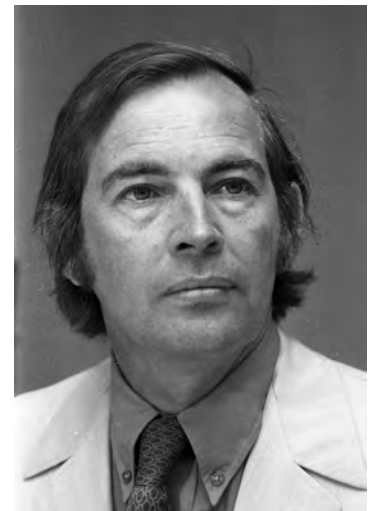
- Agreed local escalation pathways.
- Clear reporting lines (e.g. to Chief Perfusionist /Governance Lead).
- Defined time allocation for the role.
- Integration with Trust-wide safety and risk systems.

Puzzle Answers

Oct-Dec 2025 issue



Who Am I?



Christiaan Barnard

Wordsearch solution?



Solve the Riddle...

I whisper first steps, then shout when you stand still,
A mile might slow my guest - then stop them on the hill.
My roads grow narrowed, rough and stiff with time,
steal warmth, thin the hair and make wounds slow to climb.
Pulses fade like footprints in the sand,
Look low and pale where once was pink and tanned.

What am I?

Answer: Peripheral Vascular Disease

The College of Clinical Perfusion Scientists *of Great Britain and Ireland*

Re-registration 2025/2026

~ Are you ready to re-register? ~

You can upload your activity on the new registration portal at

<https://apps.knack.com/scps/re-registration-portal/>

This is what you need to submit electronically:

- ♦ 40 clinical points from 1st April 2025.
- ♦ 15 academic points from 1st April 2023 with *proof*.
(**Group 1 ONLY** - surnames **A to F**).
- ♦ Along with the **£120** filing fee payment.



Payment can be made via bank transfer, credit/debit card
(see **QR** code).

However, we encourage you to set up a **Direct Debit** to
pay the £120 filing fee.

Haven't done it yet? Feel free to contact Valerie Campbell
or Zenia Simone for a DD mandate form.



Scan to pay

DEADLINE

Clinical activity must be submitted along
with the £120 filing fee by **1st May 2026**
or a late-filing fee of £120 will apply.

Email: admin@scps.org.uk

Tel: +44 (0)20 7869 6890/1

Children's Easter Competition

DESIGN YOUR
OWN...

Easter Crocs!

Entries by 18th May to
SCPSeditor@scps.org.uk

WIN A GIFT
VOUCHER



International Women's Day

– Swetha Iyer Interview



1. Please could you introduce yourself and where you work currently.

My name is Swetha Iyer and I am a cardiac surgeon with subspecialty interest in aortic surgery. After graduating from Mumbai, I entered the UK training system as a foundation trainee. My cardiac and aortic training was mainly in Royal Papworth hospital as a national trainee, eventually working as a locum consultant there before moving to Manchester as a substantive consultant. I am based at Wythenshawe hospital currently.

2. What inspired you to pursue a career in cardiac surgery?

This has always been a tricky question for me to answer as there was no specific event in my life that encouraged me to pursue cardiac surgery. I always knew I wanted to be surgeon and even briefly toyed with the idea of pursuing obstetrics and gynaecology during my medical school years but by the end of that rotation I knew it was not for me! Funnily, I only truly fell in love with and started enjoying cardiac surgery after I became a registrar, as I truly started to appreciate cardiac physiology and obviously the opportunity to finally perform parts of the surgical procedure.

3. Cardiac surgery has traditionally been a male-dominated field. What has been your experience as a female in the profession?

My experience has mostly been positive so far. I had strong role models while growing up at home who taught me to always keep my eye on the prize and ignore the noise within reason. But I will be quick to acknowledge that this may not necessarily be the case of others. I have experienced being underestimated and having to prove myself for a much longer period of time compared to male colleagues in similar stages of their careers, suggestions in meetings going unheard but instantly accepted when repeated by male colleagues few minutes later, confusion surrounding how to address me especially after becoming a consultant by more junior members of the team, etc. The reality is every successful

woman irrespective of the environment (including the corporate world) continue to go through this, it was reassuring talking to others that I was not alone! What has worked for me is continuing to focus on my work / results, always staying professional, being polite to people but equally calling them out if professional boundaries are crossed and working in a collaborative manner with other surgeons. Even though it takes longer, the recognition of calibre eventually comes.

4. Have you noticed any changes in gender representation in surgery since you started your career?

Definitely! There are many more female trainees in cardiac surgery at the moment and there are a number of female consultants in cardiac surgery not just in this country but other countries around the world as well. The landscape is gradually changing.

5. What barriers still exist for women wanting to pursue a career in a surgical speciality?

There are number of barriers for example the long hours which may not always be conducive with family life, cultural barriers where a more traditional role is expected of the women, the unavoidable biological clock, lack of self confidence, prejudiced older colleagues who may put one off surgery, to name a few. But it is important we do not generalise these issues as individual circumstances vary and for some it may be possible to achieve their goals with the right kind of support such as less than full time training, meeting other female surgeons to learn about their journey, choosing surgical sub-specialties which are likely to have less out of hour commitments. We need to be more vocal about success stories and availability of support, so we do not unconsciously keep reinforcing the existing negative narrative.

6. What was the most challenging part of your training and how did you overcome it?

The training years were hard, but I am so grateful I went through that. You

cannot develop the physical, emotional and mental resilience one fine day when you become a consultant unless you have put in the hard work during your training years: long working hours, continuously following up patients, waking up in the middle of the night remembering something you had forgotten to check in your busy day, giving it your all and still being told off for missing something by your trainers, impatiently waiting for any and every opportunity to operate and then learning to pick yourself up when you do not perform as skillfully as you had hoped to... The list goes on. If you are doing it right, you will break multiple times and learn multiple strategies to mend, all of which will make you a technically competent and emotionally strong surgeon.

7. What is your most memorable surgery or patient experience that has stayed with you?

Operating on someone for a type A aortic dissection with a history of previous bilateral lung transplantation was exciting. A few years ago a patient confided in me she was in an abusive relationship and wanted out, I had done absolutely nothing different to trigger this conversation, so initially it was a surprise. Luckily, the patient had great support from their adult children, and we were able to support the patient through this journey in addition to the surgical recovery successfully. Over the last couple of years, I have had the privilege of operating on a number of individuals on the autistic spectrum and with varying degrees of learning difficulties. I have some firsthand experience with a close family member on related conditions, so I am passionate about these scenarios, spending a lot more time with these individuals and their families. I usually find these experiences to be personally extremely rewarding.

8. How do you manage the emotional and physical stress of a high pressure career?

I am incredibly lucky that I have an extremely supportive and loving family who are my rock. They are the reason for

my success. They help put things into perspective especially during emotionally challenging times and have pulled me out of states of self pity and low self confidence several times.

The physical side is a whole different situation. As cardiac surgeons we hold some of the worst postures (think left internal mammary artery harvesting) for long hours. It was not until I discovered strength training a couple of years ago that several of my aches went away and recovery after long operating hours became much easier.

9. What qualities do you believe make a great cardiac surgeon?

Firstly, you must love what you do, it cannot become 'routine'. Recognizing that you are a vital part of a large team and respecting the other members of this team goes a long way in ensuring success. Effective communication, honesty and not hesitating to seek help ensures that your team view you as a trustworthy and reliable surgeon. Finally, be open to different suggestions and differing opinions - you never know what you may learn!

10. What innovations in cardiac surgery excite you the most?

I am very excited about minimally invasive cardiac surgery. The smaller incision and quicker recovery for patients, the endoscopic cameras allowing better visualisation of the procedure for everyone in the room so your team can assist you better, the closer collaboration with your anesthetists and perfusionists for these procedures and the excitement of learning something new are just some of the positives of this. With advances in nonsurgical management of various diseases especially the aortic valve, it is important that we as surgeons keep pushing the boundaries and remain in a healthy competition with our cardiology colleagues.

11. How do you manage your work-life balance? How do you wind-down after a busy day's work?

I am still figuring out what this balance would look like for me. But it has become clear to me that it is important to take breaks every couple of months to recharge your emotional batteries so that you can effectively combat stress. I love traveling, mostly on solo trips; it infuses

me with a different kind of enthusiasm for life and confidence.

During the working period, I find strength training and floating in water (still learning to swim!!) very relaxing. One energises me, the other completely relaxes me, so I take my pick depending on the day or time I may have. Breath work is another important and effective technique which I wish I did more often.

12. What advice would you give young ladies wishing to apply for a career in cardiac surgery?

It is possible to have it 'all' provided you have a clear idea of what 'all' means for you and not fall into the traditional definition. It is important to realise that this will mean different things to different women and also have a different meaning at different stages of life. Cardiac surgery is particularly challenging technically with a strong requirement of paying attention to detail but is also extremely rewarding instantly following most procedures. So go confidently in the direction of your dreams, live life the way you have imagined it!



LESS CLEANING, MORE PERFUSION

Automated cleaning and disinfection of **heater-cooler unit (HCU)** process water with only about **10 minutes** of daily effort.



SAVE TIME IN YOUR DAILY WORKFLOW WITH WCD2-C

- Reduce cleaning effort
- Automate documentation
- Significantly extend HCU lifespan
- Ensure consistent water quality



Get in touch with us!

CONTACT US | ☎ +43 3842 81516-0 | ✉ info@proaqua.at | 🌐 www.proaqua.at

SCPS Spring Webinar



The Spring Webinar, to be held on 24th April via Zoom, will provide an important opportunity for Perfusionists worldwide to come together virtually for a day of professional discussion, reflection and shared learning. Under the theme "Are We Fit for Purpose?", the programme will feature a range of expert speakers and panel discussions addressing matters of current importance to the profession, including re-registration, emotional resilience, mentoring, legal considerations in practice, and the role of simulation in supporting improvement and training. The webinar offers colleagues the opportunity not only to hear from experienced speakers, but also to contribute to discussions on issues that are central to the ongoing development of Perfusion practice.

If you are interested in being a panelist for the Spring Webinar, please get in touch via email admin@scps.org.uk



REGISTER TODAY

Are We Fit For **Purpose?**

24 April 2026

 zoom Spring Webinar  SCPS



Solve the Riddle...

I do not strike the muscle, yet the beat grows weak.

I add no weight, yet chambers cannot speak.

With every pulse, I steal a little more space,

Until filling surrenders to pressure's embrace.

The blood still arrives, but leaves in despair –

What am I?

Answer published in the next issue

Who Am I?



CUSTODIOL®

HTK - Bretschneider®

YOUR **CARDIOPLEGIC SOLUTION** FOR **ALL SITUATIONS**

COMPLEX HEART SURGERY
VALVE SURGERY
MICS
CABG
PEDIATRIC SURGERY
HEART TRANSPLANTATION



www.custodiol-college.com

CUSTODIOL Solution for **cardioplegia / organ preservation**

Composition: 1,000 ml of the solution contain: 0,8766 g sodium chloride (15.0 mmol), 0,6710 g potassium chloride (9.0 mmol), 0,8132 g magnesium chloride x 6 H₂O (4.0 mmol), 27,9289 g histidine (180.0 mmol), 3,7733 g histidine hydrochloride monohydrate (18.0 mmol), 0,4085 g tryptophane (2.0 mmol), 5,4651 g mannitol (30.0 mmol), 0,0022 g calcium chloride x 2 H₂O (0.015 mmol), 0,1461 g α-ketoglutaric acid (1.0 mmol). Water for injections. Potassium hydroxide solution, (for pH adjustment). **Indications:** Cardioplegia in cardiac surgery operations, preservation of organ transplants; perfusion and cold storage (heart, kidney, liver, pancreas). **Posology and method of administration:** See prescribing information. **Contraindications:** Hypersensitivity to the active substances or any of the excipients. **Warnings and precautions for use:** Not for systemic administration. See prescribing information. **Shelf life:** 1 year. **Storage:** Store in a refrigerator (2-8°C)

Pack sizes: 6 bags x 1,000 ml, 4 bags x 2,000 ml. POM. PL41891/0001.

MAH: Dr. Franz Köhler Chemie GmbH, Werner-von-Siemens-Str. 14-28, 64625 Bensheim, Germany

UK Distributor: PHARMAPAL Ltd., 404 Centennial Park, Elstree, Herts WD6 3TN, Phone: 0208 91 25 333

E-mail: info@pharmapal.co.uk

Please see Full Prescribing Information.

Adverse events should be reported. Reporting forms and information can be found at www.mhra.gov.uk/yellowcard
Adverse events should also be reported to medinfo@pharmapal.co.uk

References:

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

Successful Conversion from Central Venous Arterial to Venous Venous ECMO in a Paediatric Patient with Influenza A and PVL: A Case Report

Kirsty Wilson, *Trainee Perfusionist*, Birmingham Children's Hospital

Abstract

Veno-arterial (VA) to veno-venous (VV) extracorporeal membrane oxygenation (ECMO) conversion is indicated for patients with recovered cardiac function who require ongoing respiratory support¹. We report the case of a 50kg paediatric patient at Birmingham Children's Hospital (BCH) who required conversion from central VA to peripheral VV ECMO. Following 16 days of VA support for Influenza A and impaired left ventricle (LV) function, a 31 Fr dual-lumen cannula was placed via the internal jugular vein. After clamping the left atrial (LA) vent, VA support was discontinued and VV ECMO was initiated. The patient stabilised haemodynamically and remains on VV support with positive neurological and physical progress.

Introduction

Converting from VA to VV ECMO is a rare but effective strategy in paediatric patients with cardiac stability who require continued respiratory support¹. This was only the second time we have performed this conversion at Birmingham Children's Hospital (BCH), and it shows how a smooth technical transition to VV support can help with long-term respiratory recovery.

Case Presentation

A previously healthy 50 kg, 11-year-old male presented with fever, dyspnoea and rapid deterioration into respiratory failure and cardiogenic shock. Following transfer to BCH, he was diagnosed with Influenza A and Panton-Valentine Leukocidin (PVL)-positive *Staphylococcus aureus*, a cause of necrotising pneumonia associated with high mortality^{2,3}. Due to rising lactate levels

and impaired LV function, he was placed on central VA ECMO (38 Fr RA cannula; 22 Fr ascending aorta cannula) via median sternotomy, with a left atrial (LA) vent incorporated into the circuit.

On ECMO day 16, cardiac function had improved, but severe lung injury persisted. A decision was made to convert to VV ECMO for long-term management. The patient was brought to the hybrid theatre on 125 ml/kg flow, heparin infusion continued with an ACT range of 160-200. A 31 Fr Avalon dual-lumen cannula was placed via the internal jugular vein into the right atrium under fluoroscopy guidance and was connected to a new blood-primed circuit to maintain adequate haemoglobin levels. VA flow was weaned to 100 ml/kg and LA vent was clamped, after assessment, VA ECMO was discontinued and VV ECMO commenced.

The child stabilised on VV support at 80 ml/kg flow, 80% FiO₂, and a 6L sweep, with saturations of 90%. Once stable, the central cannulas were removed and the chest was closed. Nitric oxide was added to the sweep on day 23 of VV ECMO, to help extend the life of the oxygenator, reducing platelet activation and thrombus during this prolonged run⁴. Now on day 42 of VV ECMO, the child is showing slow but steady lung recovery. He had a tracheostomy on day 28 of VV ECMO and is awake and alert, enjoying cycling in bed, challenging himself to a few more minutes each day. He recently celebrated his 12th birthday with his family.

Conclusion

This case demonstrates that a conversion from central VA to peripheral VV ECMO using a dual lumen cannula is a safe

strategy for paediatric patients with recovered cardiac function but persistent respiratory failure. This transition has supported the patient's clinical stabilisation and physical recovery.

Written informed consent was obtained from the patient's legal guardian for the publication of this case report.

References

- Maselli KM, Shah NR, Williams K, et al. Safety and feasibility of conversion from venoarterial to venovenous extracorporeal membrane oxygenation in pediatric patients: A case series. *Perfusion* 2025; 40: 1145-1150. DOI: 10.1177/02676591241282578.
- Gillet Y, Issartel B, Vanhems P, et al. Association between *Staphylococcus aureus* strains carrying gene for Panton-Valentine leukocidin and highly lethal necrotising pneumonia in young immunocompetent patients. *Lancet* 2002; 359: 753-759. DOI: 10.1016/S0140-6736(02)07877-7.
- Cuddihy J, Patel S, Mughal N, et al. Near-fatal Panton-Valentine leukocidin-positive *Staphylococcus aureus* pneumonia, shock and complicated extracorporeal membrane oxygenation cannulation: A case report. *World J Crit Care Med* 2021; 10: 301-309. DOI: 10.5492/wjccm.v10.i5.301.
- O'Meara C, Timpa J, Peek G, et al. Nitric Oxide on Extracorporeal Life Support-Circuit Modifications for a Safe Therapy. *J Extra Corpor Technol* 2022; 54: 142-147. DOI: 10.1182/ject-142-147.

Perfusion Word Scramble

aansglpanhyreo _____

yrheonnstpi _____

mnebmrea _____

ltuiinflatraot _____

eltysoas _____

arsuetcrdn _____

moipaigcelr _____

crvnetlie _____

irtadoc _____

ugrjula _____

beiestad _____

hatahmriy _____

diohapiitc _____

lelstari _____

aaksiwka _____



Complete ECLS
Heater Cooler capable
of warming/cooling
the patient in the
range of 15-39°.

EUROSETS HEATING AND COOLING SOLUTIONS FOR ECLS


EUROSETS
EVERY LIFE MATTERS



 **free life**
FT2800PRO

Unique warming system
for ECLS with
disposable tubes
that do not require
any disinfection
procedure.

Perfusion Spotlight

Robert Willetts

Birmingham Children's Hospital

1. What year did you start in Perfusion?

Got the job at the end of October 1973.

2. What was the course/training like back then?

There was no official course – it was on the job training. I received an ONC (ordinary national certificate) in Medical Laboratory Science.

3. How did you get into Perfusion/ hear about it?

Saw an ad in the local paper for a trainee heart lung technician and just needed to write a letter of application.

4. Tell us about BCH theatres back then.

Like anything in the early 1970s, things were home made in terms of monitoring, there were no disposable transducers or an emergency power supply. Things like tubing packs were made by hand, sterilised in an ethylene oxide bag by us. It was very basic and probably dangerous.

5. What do you like most about Perfusion?

Good question. What's there not to like



about perfusion? It's interesting, you get to work with some clever people. You're prolonging peoples living, saving their children. You get to use your brain.

6. What do you dislike about Perfusion?

Nothing specific *per se*. Obviously when the outcomes are poor. When you strive your best and it isn't successful. Medicine has evolved so we have fewer high risk true emergency operations. Both medicine and ITU have improved so the need for unnecessary out of hours operating is lower which is good because people can't perform at their best when they're tired.

7. What made you stay at BCH for your entire career?

The vast majority of my career I've been chief at BCH. The perfusion pathway

was evolving for everyone so I didn't feel the need to leave. I had opportunities to move but I enjoy working in a small team and at such a fantastic hospital so I never took them.

8. What do you enjoy doing when you're not at work?

I enjoy recovering from work. Also spending time with the grandkids. I like going to concerts and regularly go on cruises. My favourite destination is St Kitts.

9. What case do you like pumping for the most and why?

Complex pulmonary atresias are interesting. The operation is technically difficult and perfusion can be lengthy so you need to keep control of the biochemical and haematological





Baghdad mission, 1990

parameters. A double switch is similarly challenging. Something to get your teeth into.

10. Any funny stories from theatre that you would like to share?

In the old days we used to dispose of the blood from the circuit down a gully drain in the theatre itself. We used to put the end of the arterial line down the grill the just pump the blood out. One day the pipe came out and hosed everywhere. My supervisor at the time was not impressed. Everyone and everything was covered.

11. How do you think Perfusion has developed over the years at BCH? (In terms of equipment and safety features?)

Obviously modern heart lung machines have full safety devices, high quality oxys and tubing packs. It's now a protocol

driven service which maintains quality. More staff, many hands make light work and so on. Fewer or no clinical incidences which link back to the protocol driven service. Routine is one of the best things, so everyone does things the same way, again reducing risk.

12. If you hadn't become a Perfusionist, what other career would interest you?

I think I was "poorly educated", so opportunities were restricted. In a way, I was very lucky to end up doing what I do. If I could go back in time, I'd make sure my education was better. Whether I'd do the same thing again I couldn't say, even though it gives me enjoyment. If I were going into medicine again I'd probably do dentistry, if not then I'd have worked at an auction house. It's the hunt, finding people's interesting

things.

I think education is important, to give people opportunities for their future. Kids these days don't realise how lucky they are to have these learning opportunities. We were just told we weren't good enough.

13. How do you describe your job to friends and family?

I tell them I work in a cardiac operating theatre, and that I set up and run the heart lung machine for people undergoing open- heart surgery. Then I take out my phone and show them pictures of the machine so they actually understand.

14. What qualities and attributes do you look for in a good Perfusionist?

I think it's quite difficult to judge when you meet people for the first time. You don't know if they're going to be a good trainee or grasp the fundamentals of the job. You just hope they can. First impressions are important, whether they'll fit into the team. You never know if they'll perform. You hope they know what they're getting into, that they'll work hard. Listen to you and ask for help when they need.

This isn't a job you can do if you don't enjoy it. I didn't know what I was going to do when I turned up on my first day. I didn't even know I was going to be in an operating theatre. My interview was more about the type of person I was, what I would do in different circumstances. Not the knowledge, but if I could learn. They didn't even mention heart surgery! The term 'Perfusionist' was only just becoming a thing, we were technicians at that point and the society was just being formed.

15. Where do you see the future of Perfusion going in the next 10 years?

Sadly the fact that we're unregistered is disappointing. I don't know why it hasn't happened yet. We have to maintain a high level of education but the lack of registration is a let-down. Hopefully that gets sorted.



Could your skills shape the future of perfusion?

SCPS is building a **Talent Bank** of members ready to contribute their expertise to meaningful society projects. Volunteer your skills, earn CPD points, and help shape the profession you love.



Skills in Action

Problem-solving, innovation & creativity



Data & Insight

Analytics, finance, stats & digital tools



Join Our Network

Collaborate, connect & grow with SCPS

WHY GET INVOLVED?

■ Make a real difference

Your work directly supports the perfusion profession and its future.

■ Earn CPD points

Every contribution is recognised towards your continuing professional development.

■ Flexible volunteering

Project-based — fit it around your existing commitments.

■ Develop new skills

Gain real experience on meaningful projects alongside fellow professionals.



Join the SCPS Talent Bank

How to apply: Send your Expression of Interest (no more than 1,000 words) and CV to talent@scps.org.uk. Tell us which skills you can offer — we'll match you to the right projects.

SKILLS WE'RE LOOKING FOR

Creativity & Problem Solving

Advertising, design thinking and innovative solutions

Financial Planning

Budgeting, modelling and revenue generation

Statistics & Data Analysis

Quantitative methods, visualisation and reporting

Business Development

Strategic growth and sector development

Analytical Thinking

Evidence-based reasoning and critical appraisal

Excel, AI & Digital

Spreadsheets, AI tools and data management

Policy Writing

Creating standards, policies and professional guidance

QMF & Systems

Quality frameworks, building infrastructure and document control

Have skills not listed here? Send your EOI anyway — all expertise is welcome.

WE NEED YOU TO BE...

- Committed to meeting deadlines
- An excellent written communicator
- A current SCPS member
- Ready to contribute on a voluntary basis

CPD Points Awarded

All contributions count towards your continuing professional development. SCPS recognises and values the time you invest.

Ready to get involved?

Send your Expression of Interest and CV to:

talent@scps.org.uk

Applications welcome at any time throughout the year.

Children's Drawing Competition



Festive scrub hat and the winner is....



Congratulations to Beatrice Loja, aged 9

A gift will be sent out to you!

Well done!

If you are involved with
a charity providing
assistance to patients
and would like the
opportunity to publicise
their activities then
please contact the

Editor:

scpseditor@scps.org.uk

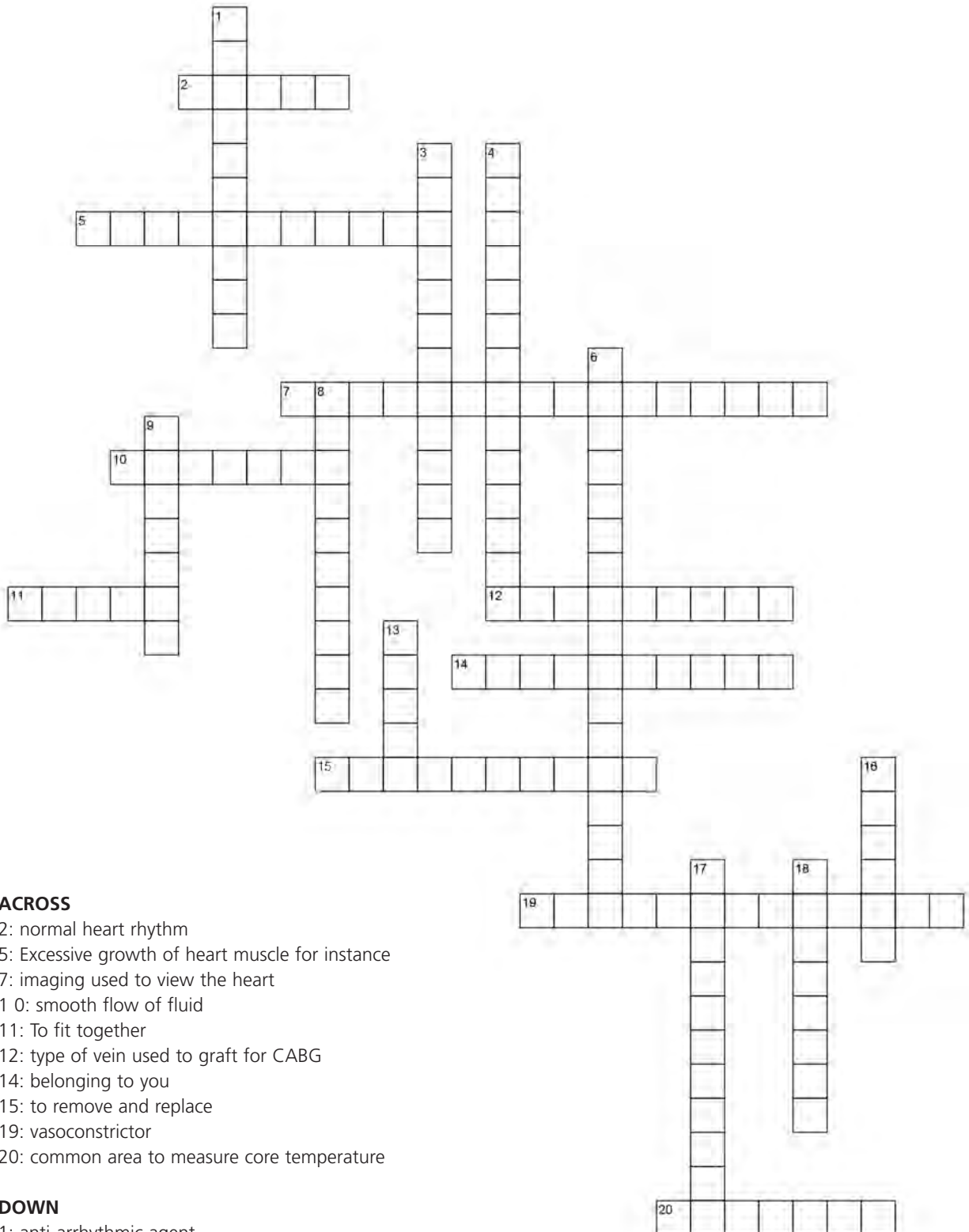


The Society of Clinical Perfusion Scientists OF GREAT BRITAIN AND IRELAND

Sub-committees 2025/2026

- ◆ **Education and Training sub-committee:** Nick Trafford (Chair), Priya Joshi, Ben Middleton
- ◆ **Meetings and Seminars sub-committee:** Laura Kerr (Chair), Graeme Nias, Ben Middleton, Lorna Seale, Alan Rayner
- ◆ **IT/Website:** Ben Middleton (Chair), Jessica Tiplady
- ◆ **Equality, Diversity and Inclusion sub-committee:** Aswani Parmar (Chair), Rebecca Friar
- ◆ **Safety Committee:** Aswani Parmar (Chair), Ann-Marie Murton, Rebecca Friar, Bryce Pate (CCPS)
- ◆ **ECMO sub-committee:** Graeme Nias (Chair), Laura Kerr, Lorna Seale

Perfusion Crossword Puzzle



ACROSS

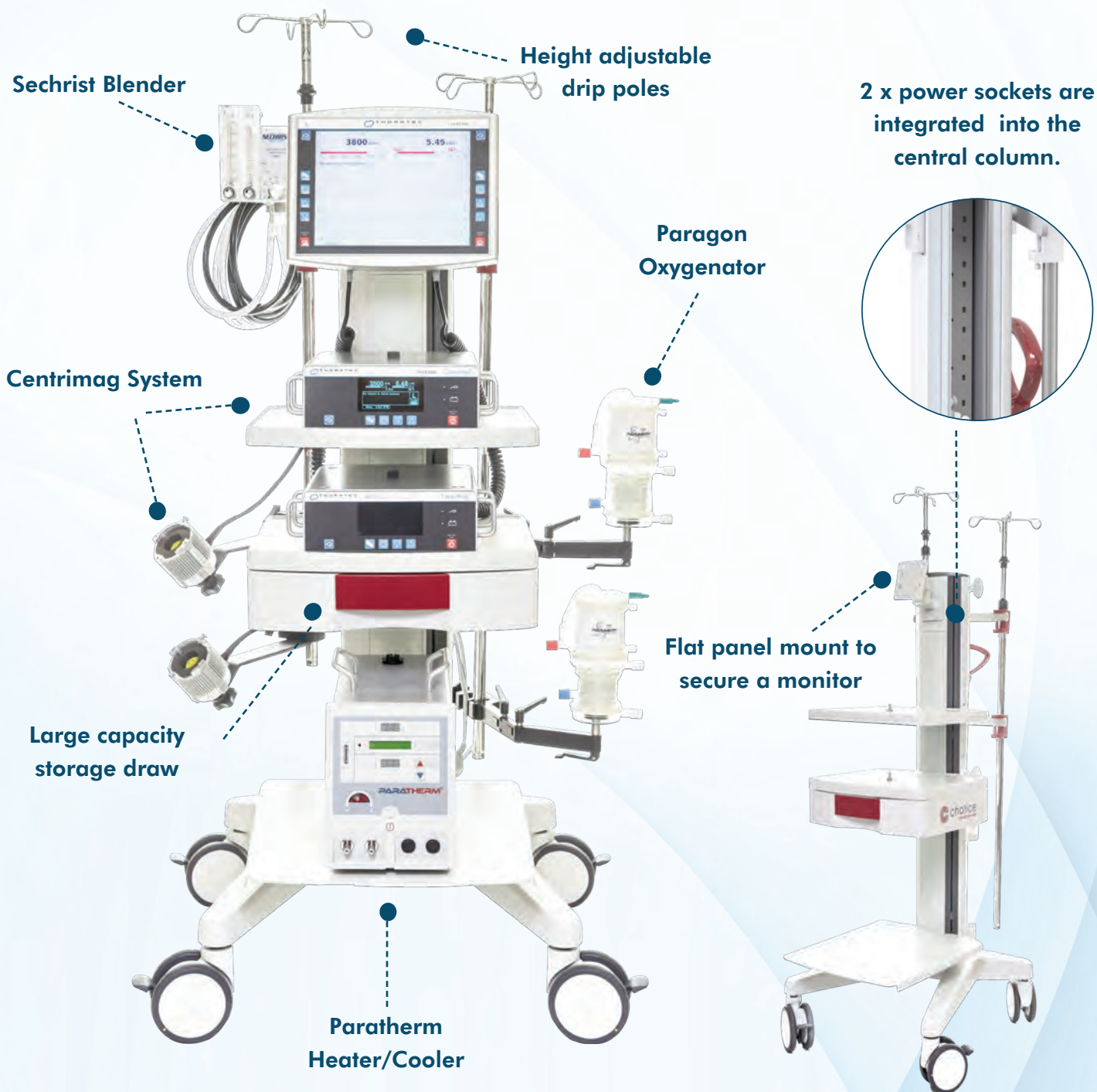
- 2: normal heart rhythm
- 5: Excessive growth of heart muscle for instance
- 7: imaging used to view the heart
- 10: smooth flow of fluid
- 11: To fit together
- 12: type of vein used to graft for CABG
- 14: belonging to you
- 15: to remove and replace
- 19: vasoconstrictor
- 20: common area to measure core temperature

DOWN

- 1: anti-arrhythmic agent
- 3: red blood cells
- 4: deliver oxygenated blood to the heart
- 6: long term oxygenator membrane material
- 8: major branch of the left coronary artery
- 9: product of anaerobic metabolism
- 13: origin of the left and right coronary arteries
- 16: a type of BSA calculation
- 17: anti-platelet drug
- 18: type of cross clamp



ECLS TROLLEY SYSTEM V2



ARROW



Introducing the Arrow AC3 Optimus Intra-Aortic Balloon Pump from Teleflex

The AC3 Optimus IABP offers the best of both worlds – remarkably accurate and precise therapy delivered with ease and simplicity. With its third generation AutoPilot Mode and proprietary WAVE Algorithm, the

AC3 Optimus IABP offers automated, intra-beat timing – even in arrhythmic patients with heart rates as high as 200 bpm.¹ That means you can spend more time focused on the patient and less time managing the IABP.

Email iabp.uk@teleflex.com for more information



References: 1. Donelli A, Jansen JRC, Hoeksel B, et al. Performance of a real-time dicrotic notch detection and prediction algorithm in arrhythmic human aortic pressure signals. *J Clin Monit.* 2002;17(3-4):181-185. Study sponsored by Teleflex.

Teleflex, the Teleflex logo, Arrow, AC3 Optimus, AutoPilot, and WAVE are trademarks or registered trademarks of Teleflex Incorporated or its affiliates, in the U.S. and/or other countries. All data current at time of printing (12/2018). © 2018 Teleflex Incorporated. All rights reserved. MCI-2018-0642

Teleflex

ADVERTISE YOUR
JOB VACANCIES
ON THIS PAGE
WHICH INCLUDES
THE SOCIETY
WEBSITE

Perfusionist

The *Perfusionist* publication needs to generate regular content from the Perfusion community. If you have undertaken or have any:

- Case reports • Research projects • Book reviews
- Product evaluations • Posters • Meeting reports
- Visits to other units • Protocols • SOPs • Departmental news or updates
- Product launches • Company updates & relocations
- New procedures and techniques • Journal reviews • Surveys • Overseas expedition work reports

These items can be submitted for publication.

For more information

please contact the Editor:

SCPSeditor@scps.org.uk



Guest Editors Wanted

Perfusionist



Bi-monthly publication of
The Society of Clinical Perfusion Scientists
of Great Britain and Ireland

SPECIALIST EDITION

*Guest Editors for
Specialist Editions
of the **Perfusionist**
are needed.*

*No experience
required, all support
will be provided.*

Following interest at the 2019 AGM in Manchester from various individuals in putting together Specialist Editions of the *Perfusionist* it was intended to hold a Guest Editor's Workshop. Obviously that has been delayed. If you were or are thinking you may be interested in editing a Specialist Edition of the *Perfusionist* I thought it would be a good idea to run through a crash course in what is required to be the Editor of an edition on your chosen theme, so what's needed for an edition:

- ▶ One or two substantial articles (don't worry about word count or amount of pictures, can be trimmed if too long)
- ▶ Historical aspects of the editions main subject
- ▶ Short pieces new teaching techniques/horizon
- ▶ Maybe an opinion or experience piece on subject
- ▶ Letters
- ▶ Unit profiles
- ▶ Some commercial pieces, production information, new techniques, future regulation – maybe approach some specialists from our industry partners.

- ▶ Editorial – one page introducing articles and any opinion about 600 to 1000 words can insert a picture or two
- ▶ Included will be the standard pieces, News from SCPS, College EBCP.
- ▶ Deadlines – There will be no set dates if you prefer, leaving plenty of time for flexibility.

- ▶ Les our publisher can help with any publishing/advice/formatting issues and I will always be available.

- Aortic Surgery
- Myocardial protection
- Pharmacology
- Cerebral protection
- Research
- Emergency bypass
- Paediatric bypass
- Biocompatible coatings
- Anticoagulation
- Prime fluids in cardiac surgery
- Cardiac Imaging
- Cardiac support
- Isolated limb perfusion & cancer therapies

In the pipeline Editions

- ▶ Education & Training
- ▶ Paediatrics

I hope that any perfusionists out there will seriously think about the Guest Editor edition positions or the opportunity to submit an article on a specialist subject.

What to do next

1. Choose an edition from the list or suggest an edition you would be interested in editing.
2. Email editor@scps.org.
3. Contact colleagues, friends, acquaintances, company representatives and specialists for articles.
4. Start collecting material ... negotiate publication date and deadlines
5. Any questions let me know.
6. Good luck...

If you wish to submit an article for a Specialist Edition rather than edit then please email editor@scps.org.uk and I will forward to the Specialist Edition Editor.

The Society of Clinical Perfusion
Scientists of Great Britain and Ireland

Executive Committee 2025/26

Officers and Committee members can be contacted via our Administrator, Valerie Campbell on 020 7869 6891, email: admin@scps.org.uk or at the addresses below:

Jacqui Simmons (Chairman)

University Hospital of Coventry and Warwickshire
Email: SCPSchair@scps.org.uk

Aswani Parmar (Secretary)

St Barts Hospital
Email: SCPSsecretary@scps.org.uk

Alan Rayner (Treasurer)

London Bridge Hospital
Email: SCPSTreasurer@scps.org.uk

Laura Kerr (Registrar)

St Barts Hospital, London
Email: SCPSregistrar@scps.org.uk

Ben Middleton

Basildon Hospital CTC centre
Email: BMiddleton@scps.org.uk

Graeme Nias

Royal Papworth Hospital
Email: Graeme.Nias@scps.org.uk

Priya Joshi

Glenfield Hospital
Email: PJoshi@scps.org.uk

Nicholas Trafford

Cork Mater Private Hospital
Email: nick.trafford@materprivate.ie

Lorna Seale

Great Ormond Street Hospital
Email: lorna.seale@scps.org.uk

Rebecca Friar

Sheffield Teaching Hospitals, Northern General Hospital
Email: Rebecca.Friar@scps.org.uk

Jessica Tiplady (Editor)

Manchester Perfusion Practice & Glenfield Hospital
Email: scpseditor@scps.org.uk

Society Administrator: Valerie Campbell
Assistant Administrator: Zenia Simone
The Society of Clinical Perfusion Scientists of Great Britain and Ireland
The Royal College of Surgeons of England
38–43 Lincoln's Inn Fields, London WC2A 3PE
Tel: (+44) 020 7869 6891
E-mail: admin@scps.org.uk

PERFUSION DIRECTORY . . .



Members are reminded that **Valerie Campbell**, the Society's Administrator, can supply information and advice on all administrative matters relating to the Society and the College.

She can be contacted at:

**The Society of Clinical Perfusion Scientists
of Great Britain and Ireland**
The Royal College of Surgeons of England
38–43 Lincoln's Inn Fields
London WC2A 3PE

Tel: (+44) 020 7869 6891

E-mail: admin@scps.org.uk

Perfusionist publication

for advertising enquiries:

Perfusionist

Contact: Les Allen

telephone: 07944 295613

email: perfads@icloud.com

website

Contact: Valerie Campbell/

Zenia Simone

telephone: 020 7869 6890/1

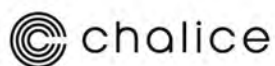
email: admin@scps.org.uk

for editorial enquiries:

Contact: Jessica Tiplady

Telephone: 07815 726366

e-mail: SCPSeditor@scps.org.uk



TEL: 01909 470777

www.chalicemedical.com

enquiries@chalicemedical.com

Future Quarterly Editions 2025-26

Spring – January-March 2026

Summer – April-June 2026

Autumn – July-September 2026

Winter – October-December 2026



Please submit your artwork/copy
to the editor:

jessica.tiplady@uhl-tr.nhs.uk

by the 7th of the final month of
the quarter.

LivaNova

Health innovation that matters

The Market leader in
Cardiopulmonary Equipment
and Disposables

LivaNova UK Ltd
A wholly owned subsidiary
of LivaNova Plc
1370 Montpellier Court
Gloucester Business Park
Gloucester
GL3 4AH

Tel +44 (0) 1452 638500
Fax +44 (0) 1452 638530
Email: salesuk@livanova.com
Website: www.livanova.com

GEM[®] Hemochron[™] 100

Whole Blood Hemostasis System
ACT, Point Of Care Testing

Werfen UK

712 The Quadrant, Cavendish Avenue, Birchwood, Warrington,
Cheshire WA3 6DE

Tel: 01925 810141

Email: sales.uk@werfen.com

www.werfen.com



werfen

Diagnostic Solutions for Life



■ Cascade Abrazo

– Microsample coagulation monitoring

■ Actalyke

– ACT system

■ Plateletworks

– Platelet function testing

GTA (UK) Ltd
34 Nottingham South Ind. Est.
Ruddington Lane
Wilford
Nottingham
NG11 7EP

Tel: 0115 981 5703
mail@gtamedical.co.uk
www.gta-uk.co.uk

Medtronic

Further, Together

CARDIAC SURGERY AND STRUCTURAL HEART

- Cardiopulmonary Products
- Paediatric Perfusion Products
- Extracorporeal Life Support (ECLS)
- Heart Lung Machine and accessories
- Blood Management and Diagnostics

Medtronic Limited
Building 9, Croxley Park, Hatters Lane
Watford, Hertfordshire, WD18 8WW
Tel: +44 (0) 1923 212213
Fax: +44 (0) 1923 241004

medtronic.co.uk

For further information please contact: rs.perfusion@medtronic.com
UC202107468 EN

Essenz™

Perfusion System



Elevating perfusion into a New Era

In the OR, advanced cardiopulmonary technology and the highly skilled hand of the perfusionist perform as one.

Essenz™ is LivaNova's next generation perfusion system that bridges five decades of proven performance, an enduring commitment to the safety of the patient, and the data accuracy you demand to bring more clinical wisdom to the OR.

The Wisdom of Breath and Beat.



LivaNova
Cardiopulmonary

Essenz Perfusion System is not available in all geographies. Please consult your labeling.

Essenz heart-Lung Machine

Devices are intended to perform, control, monitor and support extracorporeal blood circulation replacing the mechanical pumping function of the heart, monitoring and regulating physiologic parameters during procedures requiring extracorporeal circulation.

US: Essenz HLM is intended to be used during cardiopulmonary bypass for procedures lasting six (6) hours or less.

Essenz Patient Monitor

The Essenz Patient Monitor software is a modularly structured software program package that is exclusively used with LivaNova heart-lung machines. The system allows detailed recording of perfusion data during cardiopulmonary bypass procedures as well as the processing and evaluation of this data. The data may be recorded automatically or entered manually. The LivaNova Perfusion System Monitor is a panel PC intended to be exclusively used with LivaNova heart lung machines as a base and user interface for the Essenz Patient Monitor software.

Federal law (U.S.A.) restricts these devices to sale by or on the order of a physician.

The devices should be used by qualified and skilled personnel, able to follow the indications and instructions for use contained in the information provided by the manufacturer. Not approved in all geographies, consult your labeling. Please visit the LivaNova website to receive instructions for use containing full prescribing information including indications, contraindications, warnings, precautions and adverse events.

Legal Manufacturer:

LivaNova Deutschland, Lindberghstrasse 25 D-80939 Munich, Germany

Distributed in the USA by:

LivaNova USA, 14401 W 65th Way, Arvada, CO 80004, USA

Distributed in Canada by:

LivaNova Canada Inc., 280 Hillmount Road, Unit 8, Markham, ON L6C 3A1, Canada

CP-2300015



www.essenzperfusion.com
#NewEraOfPerfusion #EssenzEra