

Workshop overviews

ARC ALS 1 Lead facilitator: Dr Matthew Lee

ARC adult advanced life support is a national course held in every state and territory of Australia by centres that are approved and certified by the Australian Resuscitation Council. At the completion of this workshop, participants will be able to describe the BLS and ALS algorithms including 'shockable' and 'non shockable' pathways and describe reversible causes of cardiac arrest in any setting. The recognition of other causes of cardiac arrest that are relatively more specific to the perioperative setting (anaphylaxis, local anaesthetic toxicity, gas or fat embolism, high-spinal and complete heart block) will be overviewed. Management of patients with cardiac arrest, including proficiency with external cardiac compression, need for early defibrillation, and the safe use of a defibrillator will be emphasised. Finally, all participants will familiarise themselves with appropriate selection and administration of drugs in cardiac arrest and be able to practice leadership skills in running a cardiac arrest. The fundamentals of post-resuscitation care will be overviewed.

Anaphylaxis & haemorrhage Lead facilitators: Dr Brett Pearce & Dr Chris Fiddes

Anaphylaxis: This ANZCA accredited workshop will enable anaesthetists to recognize the onset of suspected anaphylaxis and declare it as an 'Anaphylaxis Emergency'. A structured approach to commit to interventions to maintain or restore cardiovascular stability and oxygenation according to the ANZAAG *Anaphylaxis Management Guidelines* will be overviewed. Delegates will acquire updated knowledge of management guidelines, recognition of anaphylaxis, and rehearse emergency procedures that are essential components of training. Finally, participants will be made aware of electronic resources to assist them to develop an *Anaphylaxis Box* to be utilized in the event of anaphylaxis in all operating theatres where they work.

Major haemorrhage: This ANZCA accredited workshop is designed to facilitate a detailed understanding and approach to major haemorrhage. Participants will be taught definitions of critical bleeding, and massive transfusion, how to identify approaches to stop critical bleeding, and recognise clinical risk factors that increase mortality with

blood loss. The haematology and coagulation investigations indicated to quantify major haemorrhage will be overviewed. The minimum recommended requirements for massive transfusion including transfusion and resuscitation equipment; IV access; and personal support to undertake major resuscitation will be discussed. Finally, participants will be taught how to determine endpoints of resuscitation management of volume and selection of blood products to maximise patient outcome, including the use of blood and pharmacological products.

The VORTEX approach and airway masterclass Lead facilitators: Dr Jon Graham & Dr Louise Ellard

This Consultant-led session will allow participants to gain certification for the ANZCA CPD emergency response requirement for the management of the Can't intubate Can't oxygenate scenario. Participants will get hands-on with a surgical airway workshop incorporating front-of-the neck approaches to CICO, including cricothyroidotomy, scalpel-bougie, melker conversion and oxygenation via these devices. The workshop will teach the "VORTEX Approach", which is based around a "high acuity implementation tool", specifically designed to be used during the high-stakes, time critical situation of an evolving airway emergency. It is intended to help clinical teams perform under pressure by providing a simple, consistent template that can be taught to all clinicians involved in advanced airway management, irrespective of critical care discipline and whether they are from a medical, nursing or paramedical background. It is also able to be used in any context in which an airway management takes place.

Advanced Monitoring Masterclass: Hearts and Heads Lead facilitators: Prof Laurence Weinberg & Dr Dean Cowie

Hearts: The advanced haemodynamic masterclass is a hand-on, practical and real-time session focusing on the Flotrac® and ClearSight® devices and their use in managing and understanding peri-operative haemodynamic states. Similar workshops have been successfully delivered at national and international meetings. A practical demonstration using an invasive arterial line in a human volunteer (consented workshop facilitators) will be used to showcase how these devices function real-time. Participants will be provided with detailed, practical and pragmatic information on how to set up, use and understand the intricacies of both devices. This session involves simulated cases, illustrating the



utilisation of Advanced Haemodynamic Monitoring in everyday clinical practice, allowing participants to assess and respond to a variety of commonly encountered clinical situations. Finally, downloading haemodynamic data from the devices will be taught, in addition to how to analyze this data, which will be invaluable for clinical research.

Heads: This neurological monitoring and cerebral oximetry Masterclass will focus on the use of EEG and regional oximetry using near-infrared spectroscopy (NIRS) and reflectance pulse oximetry. You will understand the value of continuous real-time EEG monitoring and its impact on depth of anaesthesia and adequacy of cerebral perfusion, which can provide important therapeutic information in a variety of clinical settings. The current clinical utility of NIRS in the detection of cerebral ischaemia will be discussed. In addition, the application of cerebral oximetry sensors to other tissue beds including splanchnic, renal and spinal cord will be explored. A practical overview of this emerging technology will be demonstrated. Participants will understand how to interpret cerebral arterial oxygen saturation and the factors that determine oxygen delivery to the brain, in addition to the perioperative therapeutic management strategies that may be considered to improve neurological and other clinical outcomes in patients undergoing major surgery.

TEG workshop Lead facilitator: Professor Laurence Weinberg

This workshop will teach a comprehensive and accurate method to identify an individual's haemostasis condition in a perioperative setting. The course will use the TEG platform to allow clinicians to drive personalised, clinically and economically sound treatment and monitoring decisions with confidence. Scientific literature shows that the use of point of care coagulation technology can help clinicians to improve patient outcomes and reduce costs by analysing the coagulation state of a blood sample. By individualising goal-directed coagulation management, it is possible to reduce inappropriate blood transfusions. This workshop will provide an overview of point of care coagulation monitoring using the TEG system to monitor a patient's haemostasis during surgery. A pragmatic approach to bleeding in the context of trauma, cardiac surgery and obstetrics will be overviewed. The use of platelet mapping will be presented. This will be a practical workshop where clinicians attending will be provided with the skills to help determine which specific blood products are needed to stop bleeding and stratify patients according to their risk of bleeding and/or thrombotic complications.



Hypnotherapy, an anaesthesia adjunct to assist in procedures Lead facilitator: Dr Helen Nguyen

Helen Nguyen is an anaesthetist at Austin Health with expertise and experience in hypnotherapy for medical procedures and analgesia. As part of her regional anaesthesia fellowship in France, Dr Helen Nguyen has a Certificate of Clinical Hypnosis with the Francophone Confederation of Hypnosis and Brief Therapy (CFHTB), with over 600 hours as part of her immersive training in francophone contexts since 2019. She has a special interest in the application of hypnosis in the perioperative contexts as a tool for increasing patient comfort, anxiolysis and analgesia, as well as in the complex pain context, utilising formal hypnosis for patients with acute on chronic pain. During this workshop, delegates will be taught the various applications of hypnotic techniques that can be considered in the perioperative setting and acute pain setting. The practical workshop will overview how medical hypnosis can be applied for the alleviation of somatic symptoms, reduction of stress during medical treatment, and improving the patient experience while undergoing medical care. This pragmatic and practical workshop will focus on using hypnotic communication, including conversational hypnosis, formal hypnosis, and therapeutic communication.



Workshop facilitators:



Dr Louise Ellard is a Staff Anaesthetist at Austin health and Honorary Senior Clinical Fellow in the Department of Critical Care; Melbourne Medical school. She is currently the deputy director of Anaesthesia - clinical operations at Austin health. Dr Ellard has clinical and academic interests in cardiothoracics, complex head and neck surgery including difficult airway, and major hepatobiliary surgery including liver transplantation. Her academic work includes airway management with a number of book chapters and review articles. She was awarded the Cecil Gray prize for ANZCA final examination in 2009. Dr Ellard completed extended Fellowship training in difficult airway, cardiac anaesthesia and liver transplant at Toronto General Hospital, Canada from 2010-2012, and is accredited with the National Board of Echocardiography in advanced peri-operative echocardiography. Other interests include airway teaching and registrar training and exam preparation.



Dr Jon Graham has been employed as a staff Anaesthetist at the Austin Hospital for over a decade. He is particularly interested in ENT, thoracics and the difficult airway. His non-clinical interests include difficult airway and simulation, having taught and facilitated on numerous courses both locally and interstate. At the Austin, with the assistance of anaesthetic and other specialist colleagues, Dr Graham has supervised and led the development of a comprehensive airway training program for Austin trainees. He has established the Hospital Difficult airway group which has surgical, intensive care, emergency department and anaesthesia membership. In the last few years with Austin colleagues he has coordinated a CICO workshop for Consultant Anaesthetists as well as establishing advanced multidisciplinary airway training.



Dr Dharshi Karalapillai is a dual trained anaesthetist and Intensive care physician, staff Intensivist and visiting Anaesthetist at Austin Health. His interests include the perioperative management of the critically ill surgical patient and perioperative echocardiography. He has completed a post graduate diploma in perioperative ultrasound at the University of Melbourne and the National Board of Echocardiography Advanced PTE exam. In 2022 he also completed a PhD focussing on perioperative ventilation strategies and respiratory management. His work has been published in the prestigious journal JAMA. He is a current recipient of a major ANZCA research grant and previous recipient of the Boots Young Investigator award and the ASA Kevin MacCaul prize. Dr Karalapillai is an instructor at the NATCAT, ANZSAC and ACE airway courses.



Dr Brett Pearce is a staff anaesthetist at Austin Health and deputy director of Anaesthesia at the surgery centre. He has academic and clinical interests in major hepatobiliary and liver transplant surgery and non-clinical interests in clinical informatics and electronic medical records systems and processes. Dr Pearce is actively involved in clinical teaching and is the co-supervisor of training for the critical care HMO program. He is an investigator in numerous clinical research trials and is also actively involved with pain medicine.





Prof Laurence Weinberg is the Director of Anaesthesia at Austin Health. He is a fulltime academic anaesthetist with clinical and research interests in complex cardiac, thoracics and major hepatobiliary-pancreatic-abdominal surgery, including liver and kidney transplantation. He has been the principal investigator for over 40 RCTs and is Chief Investigator for the BEST Fluid Study and the CLIP II trial, which has been awarded >Au\$ 3M in NHMRC funding. He has >200 PubMed listed peer-reviewed publications with primary research interests in health costs and outcomes after major surgery, perioperative fluid therapy, and advanced haemodynamic and cerebral monitoring. Over the last 10 years Dr Weinberg has presented his research and conducted haemodynamic workshops at more than 100 international and national meetings and conferences.

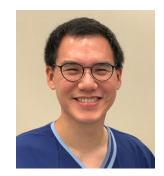


Dr Dean Cowie is the Deputy Director of Anaesthesia at Austin Hospital with clinical interests in anaesthesia for complex neuro and cardiac surgery, including transoesophageal and transthoracic echocardiography. Dean served as Supervisor of Training and as the College Rotational Supervisor, where he was integral to the development of the NorthWest Training Scheme programme. His extensive college contributions include implementation of the new ANZCA curriculum in 2013, the regionalisation of training in 2014, and the foundation of program wide primary exam teaching. Dean also has a strong interest in perioperative medicine, and is currently completing a Masters of Medicine (Perioperative) at Monash University.

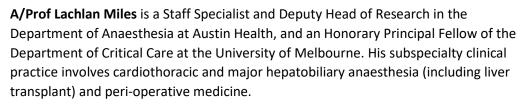


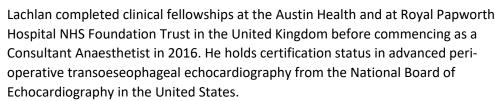
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Dr Matthew Lee is a fulltime staff anaesthetist at Austin Health with clinical and academic interests in cardiac anaesthesia and simulation. He is also Head of Education and Professional Development and has served in other leadership roles, including head of Airway and Simulation Training. In 2016, Matt was awarded the Dr Alan K Laws Fellowship Award to undertake simulation education from Professor Jenny Rudolph at the prestigious Center for Medical Simulation, Harvard University. Further, he has been educated by and collaborated with Professor Patricia Houston at University of Toronto's Alan Waters Family Simulation Centre, and Professor Jenny Weller at University of Auckland. He is an ALS1 and ALS2 instructor for Australian Resuscitation Council, EMST instructor for Royal Australasian College of Surgeons, EMAC instructor for Australian and New Zealand College of Anaesthetists, and Clinical Simulation Coordinator for St John Ambulance Victoria. Under Matts leadership there has been a substantial increase in simulation output at Austin Health due to the introduction of new programs including Multidisciplinary Operating Room Training at Austin and Repatriation (MORTAR), Simulation Orientation for Fellows in Anaesthesia (SOFA) and Interdisciplinary Airway and Trauma Education.





Lachlan balances his clinical interests with a substantial research portfolio. He completed his PhD at University of Melbourne examining the identification and management of non-anaemic iron deficiency in patients undergoing cardiac and colorectal surgery. He has published > 30 original manuscripts in high-impact anaesthesia and general medicine journals in the last 5 years and is the principal chief investigator of the IDOCS and NATO studies, the latter of which is endorsed by the ANZCA Clinical Trials Network. He is a previous winner of the Douglas Renton Medal for the Primary Fellowship Examination, awarded by ANZCA in 2010, the Anaesthesia and Intensive Care Emerging Researcher Award in 2019, and the Gilbert Brown Prize, awarded by ANZCA for the best free paper at the Annual Scientific Meeting in 2020. He is an Editor of the journal Anaesthesia Reports.





Dr Chris Fiddes (MBBS, FANZCA, C Periop US, MMed (Periop) is an anaesthetist at Austin Health. He also has a busy private practice with subspecialty clinical interest in major abdominal surgery, complex airway surgery and thoracics. He is the co-lead of the Austin Health Anaesthesia Allergy Clinic, and in this role has facilitated numerous anaphylaxis workshops. Accordingly, Chris has a in depth understanding of contemporary practices pertaining to the diagnosis, management and follow up of anaphylaxis in the perioperative setting.