

RAH INTENSIVE CARE

It has now been 2 years since we moved down North Terrace into the new Royal Adelaide Hospital. Training and Research both remain a major focus of our Unit, and in this Newsletter we highlight some of our achievements over the past 12 months, as well as including some information about our mentoring program, bereavement project, SAICA and its activities, registrar travel stories, and a list of upcoming local courses.



Another strength of our Unit is the social aspect. Longstanding traditions include the morning coffee 'meetings' (see below) and weekend group lunches with newspaper quiz. With regard to the latter, we have noted an ongoing lack of knowledge about mid-20th century musicals, the works of Shakespeare and American history, and so any registrars who would like to work with us in the future and who have expertise in those areas will be strongly considered for a position.

This is an annual publication, so if you are aware of any other achievements that we have unfortunately omitted, please let us know!



RAH ICU Facts and Figures

The Royal Adelaide Hospital ICU is the busiest Level 3 Unit in South Australia, and in the 12 months from July 2018 to June 2019, we admitted 3731 patients. About 13% were direct admissions following cardiac surgical procedures, 9% were trauma, 5% sepsis with shock, 5% pneumonia without sepsis, 4% subarachnoid haemorrhage, 4% craniotomy for neoplasm, 4% respiratory neoplasm surgery, 4% drug overdose, 4% following cardiac arrest, 3% ENT cancer surgery, and 2% gastrointestinal bleeding. Operating theatres were the source of admission for 50% of our patients, 29% were admitted directly from the Emergency Department, 15% from the wards, and 6% were transferred directly from another hospital to our ICU.

The Unit currently has 44 Registrars (42 FTE) on the roster (17 registered with the CICM) from a variety of backgrounds and training programs, and with very different levels of experience and long-term goals.

SOME OF OUR 2018/2019 ACHIEVEMENTS

RESEARCH

32 publications in peer-reviewed journals

Numerous research grants and scholarships

Presentations at scientific meetings

Faculty of Health and Medical Sciences Executive Dean's Award for Research, University of Adelaide, 2018

Tub Worthley Travelling Scholarship 2019

Establishing the ICU Bereavement Project

TEACHING AND TRAINING

3 Registrars passed the CICM Fellowship Exam, and 3 passed the Primary Exam

Highly successful Primary and Fellowship CICM Exam Courses

Involvement in number of other Courses including;

- Cardiac Surgery Advanced Life Support (CALS) Courses
- BASIC Courses
- SA Critical Care Ultrasound Courses
- RAH Postoperative Care of the Cardiothoracic Patient Courses

Education and Training

Congratulations to Kris Hayres who passed the CICM Fellowship Exam in October 2018, and Guido Janssen and Sandeep Sethi who made it through in May this year. Kris will now move overseas (see below), Guido will spend some more time with Medstar (retrievals), and Sandeep is staying with us for at least another 6 months.



Congratulations also to Abby McArthur, Vivek Rajendran and Matt Hauser for passing the CICM Primary Exam.

In overseas news, Nikki Yeo has just completed 12 months as a Senior Clinical Fellow in Neurosciences and Trauma Critical Care at the Addenbrooke's Hospital in Cambridge, and has now moved to a Clinical Fellow position in Critical Care at the Royal Papworth Hospital.

Michael Davies has also taken up a Clinical Fellow position at the Royal Papworth this year, concentrating on cardiothoracics, transplant and ECMO-related critical care.

Kris Hayres will be starting as a Senior Clinical Fellow in Paediatric Intensive Care at the Royal Hospital for Children in Glasgow in September. Hopefully she remembers to take matching shoes (see back page....).

The Twelfth Annual Tub Worthley Travelling Scholarship was won by Sam Westaway (RAH) in May this year for his presentation, 'Is medical handover of patients discharged from the RAH ICU optimal?'. This is awarded for the best registrar research presentation at the annual South Australian ANZICS meeting. Other registrars from the RAH who presented their research on the night were Gillian

Crowe and Tej Murthy, as well as medical student, Sarah Howson.



The 37th running of the South Australian Intensive Care Fellowship Exam Course was held in February this year, with 30 candidates from Australia and New Zealand (photo below). There were once again over 30 faculty, including 11 from the RAH and 7 from interstate. Hot Case practice sessions were held at the RAH, QEH, FMC and LMHS. The 2019 Course was flooded with applications, filling up within 24 hours. Increasing numbers of trainees are sitting the Fellowship Exam, and so if you are planning to sit in 2020, make sure you apply for the course as soon as registrations open in September this year or you are likely to miss out. However, it is important to note that it is very much focused on preparing candidates for the Exam, rather than trying to teach the intensive care curriculum in 3 days. Candidates are therefore expected to have done significant preparation beforehand. There will also be a change of venue in 2020. We have really enjoyed being based at Ayers House for many years, but will be moving to the Playford Hotel (still in the centre of Adelaide) next year.

The South Australian Primary Examination Course was held in July. Mark Finnis has been coordinating it for many years now, with assistance from a number of the RAH and FMC Intensivists. It is an intensive 5 days, but excellent preparation for the CICM (and ANZCA) Primary Exam. Places are limited to 24 and it also invariably over-subscribed - so make sure you register

early.

The South Australian Critical Care Ultrasound Course is a 2-day course on focused cardiac, lung, abdominal and procedural ultrasound relevant to critical care, and is held twice a year.

A new initiative this year is the South Australian ICU Registrar Network, which was set up by Kris Hayres and Aniket Nadkarni to bring ICU registrars together from across the State. More details are contained later in this Newsletter.

Along those lines, the 6th Trainee Lecture Series day was held in April, and was chaired by one of our Senior Registrars, Rob Grieve. Speakers were Toby Coates (Renal), Ranjan Joshi (Obstetrics), Subodh Ganu (Paediatrics) and Stewart Moodie (ICU), and it was attended by registrars from the different hospitals.

At the RAH, there is a comprehensive 2-day orientation program around the major registrar changeover dates (in February and August) for registrars new to the Unit, including a full-day Postoperative Care of the Cardiothoracic Patient Course, an extended patient-scenario discussion, and a session on CVC insertion.

A list of upcoming local ICU Courses is included at the end of this Newsletter.



Registrar Mentoring Program

We run a formal mentoring/support program for all trainees in ICU at the RAH. This process is separate from any skill or competency-based assessment and is aimed purely at providing psychological, emotional and practical support for our junior doctors. Our aim is therefore for it to remain completely separate from any formal College assessments. This program and any discussions or conversations are confidential and are not shared with any external person or group unless at the express wish of the trainee concerned.

A number of the Consultants and Chief Registrars have volunteered to participate and feel this is worthwhile. They work in groups of two or three, and each trainee will be assigned to one of these groups in the first instance. We hope that this ensures easy availability and access to at least one of their mentors at all times and also addresses any potential personality differences which may arise. This is not designed to limit access to any of the consultant group, as it is recognised that trainees will have multiple mentors over their career, often with a specific focus at a particular time. They are therefore encouraged to use any and all opportunities to communicate and engage with any consultant as they need. The main purpose of this formal process is to help and support trainees in whatever way possible and to try to ensure that nobody falls between the cracks.

Research Publications July 2018 - July 2019

1. TARGET Investigators, for the ANZICS Clinical Trials Group, Chapman M, Peake SL, Bellomo R, Davies A, Deane A, Horowitz M, Hurford S, Lange K, Little L, Mackle D, O'Connor S, Presneill J, Ridley E, Williams P, Young P. Energy Dense versus routine enteral nutrition in the critically ill. *N Engl J Med*. 2018 Nov 8;379(19):1823-1834. doi: 10.1056/NEJMoa1811687. Epub 2018 Oct 22. PMID: 30346225.
2. Gluck S, Summers MJ, Finnis ME, Andrawos A, Goddard TP, Hodgson CL6, Iwashyna TJ, Deane AM. An observational study investigating the use of patient-owned technology to quantify physical activity in survivors of critical illness. *Aust Crit Care*. 2019 Mar 14. pii: S1036-7314(18)30236-4. doi: 10.1016/j.aucc.2019.01.009.
3. Parry S, Chapple L, Mourtzakis M, Exploring the potential effectiveness of combining optimal nutrition with electrical stimulation to maintain muscle health in critical illness: A narrative review. *Nutr Clin Pract*. 2018 Dec;33(6):772-789. doi: 10.1002/ncp.10213. Epub 2018 Oct 25.
4. Deane AM, Lamontagne F, Dukes GE, Neil D, Vasist Johnson L, Hacquoil K, Ou X, Richards D, Stelfox HT, Mehta S, Day AG, Chapman MJ, and Heyland DK. Nutritional adequacy therapeutic enhancement in the critically ill: A randomized double blind, placebo controlled trial of the motilin receptor agonist camicinal (GSK962040): The NUTRIATE Study. *JPEN J Parenter Enteral Nutr*. 2018 Jul;42(5):949-959. doi: 10.1002/jpen.1038.
5. Ridley ER, Peake SL, Jarvis M, Deane AM, Lange K, Davies AR, Chapman MJ, Heyland D. Nutrition therapy in Australia and New Zealand Intensive Care Units: An international comparison study. *JPEN J Parenter Enteral Nutr*. 2018 Nov;42(8):1349-1357. doi: 10.1002/jpen.1163.
6. Yandell R, Wang S, Bautz P, Shanks A, O'Connor S, Deane A, Lange K, Chapman MJ. A retrospective evaluation of nutrition support in critically ill patients with an open abdomen. *Aust Crit Care*. 2019 May;32(3):237-242. doi: 10.1016/j.aucc.2018.04.004. Epub 2018 Jun 11.
7. Deane AM, Chapman MJ, Reintam Blaser A, McClave SA, Emmanuel A. Pathophysiology and Treatment of Gastrointestinal Motility Disorders in the Acutely Ill. *Nutr Clin Pract*. 2019 Feb;34(1):23-36. doi: 10.1002/ncp.10199. Epub 2018 Oct 7. Review.
8. Deane AM, Chapman MJ, Abdelhamid YA. Any news on the Prokinetic front? *Curr Opin Crit Care*. 2019 Aug;25(4):349-355. doi: 10.1097/MCC.0000000000000634. PMID:31247631.
9. Peake SL, Chapman MJ; TARGET Investigators. Energy Dense versus routine enteral nutrition in the critically ill. *N Engl J Med*. 2019 Jan 31;380(5):499-500. doi: 10.1056/NEJMc1816396. No abstract available. PMID:30699311.
10. Weinel LM, Summers MJ, Finnis ME, Poole A, Kar P, Chapman MJ, Deane AM, Ali Abdelhamid Y. Are point of care measurements of glycated haemoglobin accurate in the critically ill? *Aust Crit Care*. 2018 Dec 24. pii: S1036-7314(18)30237-6. doi: 10.1016/j.aucc.2018.11.064. [Epub ahead of print]. PMID: 30591312.
11. Young PJ, Bellomo R, Chapman MJ, Deane AM, Peake SL. What should we target after TARGET? *Crit Care Resusc*. 2018 Dec;20(4): 252-253. PMID: 30482131.
12. Sampson BG, Wilson SR, Finnis ME, Hodak AM, Jones PN, O'Connor SL, Chapman MJ. A quality control study of the adherence to recommended physiological targets for the management of brain dead organ donors in South Australian intensive care units. *Prog Transplant*. 2018 Dec;28(4):386-389. doi: 10.1177/1526924818800053. Epub 2018 Sep 16. PMID:30222049.
13. Rai S, Brown R, van Haren F, Neeman T, Rajamani A, Sundararajan K, Mitchell I. Long-term follow-up for Psychological stRes in Intensive CarE (PRICE) survivors: study protocol for a multicentre, prospective observational cohort study in Australian intensive care units. *BMJ Open*. 2019 Jan 25;9(1):e023310. doi: 10.1136/bmjopen-2018-023310.
14. Yeo N, Terrett L, Gupta AK. Contemporary Management of Aneurysmal Subarachnoid Hemorrhage. A Literature Review. *J Neuroanaesthesiol Crit Care* 2019; 6: 131-139.
15. Ou L, Chen J, Flabouris A, Hillman K, Parr M, Bellomo R. Hospital variability of postoperative sepsis and sepsis-related mortality after elective coronary artery bypass grafting surgery. *J Crit Care*. 2018 Oct;47:232-237. doi: 10.1016/j.jcrr.2018.07.018. Epub 2018 Jul 17.
16. Crowhurst T, Lightfoot J, Yeo A, Reddi BAJ, Nguyen P, Whitford H, Holmes-Liew C. Case report of severe bronchial web-like stenoses after 'surviving the unsurvivable'. *BMC Pulmonary Medicine* 2019 Jul;19(1):119 doi.org/10.1186/s12890-019-0873-z.
17. Chapple LS, Weinel LM, Abdelhamid YA, Summers MJ, Nguyen T, Kar P, Lange K, Chapman MJ, Deane AM. Observed appetite and nutrient intake three months after ICU discharge. *Clin Nutr*. 2019 Jun;38(3):1215-1220. doi: 10.1016/j.clnu.2018.05.002. Epub 2018 May 9.
18. Mallat J, Reddi BJ. Do not abandon monitoring the central venous pressure during fluid resuscitation of septic shock patients. *Intensive Care Med*. 2018 Nov;44(11):2012-2013. doi: 10.1007/s00134-018-5387-2. Epub 2018 Oct 4.
19. Reddi B, Finnis M, Udy AA, Maiden M, Delaney A, Bellomo R, Peake S; ARISE Study Management Committee and the Australian and New Zealand Intensive Care Society Clinical Trials Group. The relationship between the change in central venous pressure and intravenous fluid volume in patients presenting to the emergency department with septic shock. *Intensive Care Med*. 2018 Sep; 44(9):1591-1592. doi: 10.1007/s00134-018-5314-6. Epub 2018 Jul 20.
20. Richmond KM, Warburton KG, Finney SJ, Shah S, Reddi BAJ. Routine CT scanning of patients retrieved to a tertiary centre on veno-venous extracorporeal membrane oxygenation: a retrospective risk benefit analysis. *Perfusion*. 2018 Sep;33(6):438-444. doi: 10.1177/0267659118763266.
21. Ojha M, Raith E, Hecklemann M, Reddi BAJ, Maiden M, Hooper S, Chapman M. *Australian Critical Care*, Vol. 32, S7, 2019.
22. Bart S, Weinel L, Chan J, Nguyen P, Johnston S, Finnis M, Reddi BAJ. Pulmonary Function Testing Does not Predict Post-operative Ventilation Requirements After Elective Cardiac Surgery Accurately to Guide Individual Patient Resource Allocation. *Australian Critical Care*, Vol. 32, S8, 2019.
23. Jastrzebski N, Duncan K, Yeo N, Wilson S, Kocher M, Poole A, Reddi BAJ, Moodie S. Feasibility of Delivering Bereavement Follow-up for Relatives of Patients who Have Died in a Tertiary Intensive Care Unit. *Australian Critical Care*, Vol. 32, S14, 2019.
24. Visvanathan V, Kucia A, Reddi BAJ, Horowitz J. Takotsubo Syndrome Identified in the Intensive Care Unit: A Prospective Observational Study *Australian Critical Care*, Vol. 32, S17, 2019.

25. Aung M, Raith E, Williams E, Burrell AJ. Severe meningococcal serogroup W sepsis presenting as myocarditis: A case report and review of literature. *J Intensive Care Soc.* 2019 May;20(2):182-186. doi: 10.1177/1751143718794127.
26. Poole AP, Anstey J, Bellomo R, Biradar V, Deane AM, Finfer SR, Finnis ME, French CJ, Kar P, Kruger PS, Maiden MJ, Mårtensson J, McArthur CJ, McGuinness SP, Secombe PJ, Tobin AE, Udy AA, Eastwood GM. Opinions and practices of blood glucose control in critically ill patients with pre-existing type 2 diabetes in Australian and New Zealand intensive care units. *Aust Crit Care.* 2018 Oct 19. pii: S1036-7314(18)30129-2. doi: 10.1016/j.aucc.2018.09.001.
27. Udy AA, Finnis M, Jones D, Delaney A, Macdonald S, Bellomo R, Peake S; ARISE Investigators. Incidence, Patient Characteristics, Mode of Drug Delivery, and Outcomes of Septic Shock Patients Treated with Vasopressors in the Arise Trial. *Shock.* 2018 Oct 30. doi: 10.1097/SHK.0000000000001281.
28. Kar P, Ali Abdelhamid Y, Giersch EJ, Summers MJ, Weinel LM, Finnis M, Phillips L, Jones K, Horowitz M, Deane AM. Incident diabetes in survivors of critical illness and mechanisms underlying persistent glucose intolerance: a prospective cohort study. *Crit Care Med.* 2019 Feb;47(2):e103-e111. doi: 10.1097/CCM.0000000000003524.
29. McCaffrey J, Maiden MJ, Norrish C. In-hospital cardiac arrests: events worth monitoring? *Crit Care Resusc.* 2018 Dec;20(4):320. Maiden MJ, Torpy DJ. Thyroid Hormones in Critical Illness. *Crit Care Clin.* 2019 Apr;35(2):375-388. doi: 10.1016/j.ccc.2018.11.012.
30. Kar P, Plummer MP, Ali Abdelhamid Y, Giersch EJ, Summers MJ, Weinel LM, Finnis ME, Phillips LK, Jones KL, Horowitz M, Deane AM. Incident Diabetes in Survivors of Critical Illness and Mechanisms Underlying Persistent Glucose Intolerance: A Prospective Cohort Study. *Crit Care Med.* 2019 Feb;47(2):e103-e111. doi: 10.1097/CCM.0000000000003524.
31. O'Connell A, Flabouris A, Thompson C. Optimizing the response to acute clinical deterioration: the role of Observation and Response Charts. *Intern Med J.* 2019 Aug 6. doi: 10.1111/imj.14444.
32. Dunn MS, Beck B, Simpson PM, Cameron PA, Kennedy M, Maiden M, Judson R, Gabbe BJ. Comparing the outcomes of isolated, serious traumatic brain injury in older adults managed at major trauma centres and neurosurgical services: A registry-based cohort study. *Injury.* 2019 Jun 10. pii: S0020-1383(19)30352-3.

Book Chapters

1. Chapple L, Chapman M. Nutrition support in the critically ill surgical patient, Chapter in: Operative techniques and recent advances in acute care and emergency surgery, 2018; Editor: Aseni P, De Carlis L, Grande AM, Mazzola A. Springer, In press.
2. Bear D, Chapple L, Puthuchery Z. Rehabilitation: Nutritional strategies, Chapter in: Post-intensive care syndrome; A European Society of Intensive Care Medicine textbook series 'Lessons from the ICU', 2018; Editors: Preiser, J-C, Herridge M, Azoulay E. In press.
3. Reddi B. 2019 Focused Intensive Care Ultrasound Ed. Peck, M. and McNaughton, P. Chapter on 'Physics of Ultrasound'. Oxford University Press.

A selection of presentations at scientific meetings

1. Chapman MJ. Fulfilling Protein needs of the critically ill. ASMIC Meeting. Sept 2018, Kuala Lumpur (Malaysia).
2. Chapman MJ. Gut dysfunction in critical illness. ASMIC Meeting. Sept 2018, Kuala Lumpur (Malaysia).
3. Chapman MJ. The Role of Protein in Critical Care Illness : Current Evidence and Practice. Nestle Educational Meeting. Sept 2018, Kuala Lumpur (Malaysia).
4. Chapman MJ. Protein in the ICU - What is our TARGET? ANZICS ASM. Oct 2018, Adelaide.
5. Chapman MJ. TARGET presentation - Joint presentation with Professor Sandra Peake. ESICM ASM - President's session. Oct 2018, Paris (France).
6. Chapman MJ. TARGET presentation. Critical Care Reviews. Jan 2019, Belfast (Ireland).
7. Chapman MJ. Chair and Panel member. Critical Care Reviews. Jan 2019, Belfast (Ireland).
8. Chapman MJ. Editorial on SUP-ICU Critical Care Reviews. Jan 2019, Belfast (Ireland).
9. Chapman MJ. How I manage Nutrition. Critical Care Reviews. Jan 2019, Belfast (Ireland).
10. Chapman MJ. TARGET Trial Results and implications. Collaborative Clinical Trials in Intensive Care Medicine Conference. May 2019, Monash University Centre, Prato (Italy).
11. Chapple L. Nutrition to improve outcomes in critical illness. American Society of Parenteral and Enteral Nutrition, Nutrition Science and Practice Conference. March 2019, Phoenix (US).
12. Chapple L. Protein in critical illness: is more better? Australian and New Zealand Society of Intensive Care (ANZICS) Clinical Trials Group conference. Oct 2018, Noosa.
13. White M. ANZICS Oration. ANZICS ASM. Oct 2018, Adelaide.
14. Poole A. LUCID Study. ANZICS ASM. Oct 2018, Adelaide.
15. Gluck S. The use of objective data to automate the measurement of patient centred outcomes. Royal Australian College of Physicians ASM. Dec 2018, Adelaide.
16. Gluck S. Smartphone data as a patient outcome. South Australian Association of Internal Medicine. Aug 2018, Adelaide.
17. Ohja M. Characteristics, outcomes and health care costs associated with intensive care management of severe (WFNS grade V) subarachnoid haemorrhage: A single centre retrospective cost analysis. ANZICS ASM. Oct 2018, Adelaide.
18. Neuts A, Gluck S, Finnis M. Long-term mortality of long-stay ICU patients at the Royal Adelaide Hospital. ANZICS ASM. Oct 2018, Adelaide.
19. Moodie S. When should Life-sustaining Treatment be Stopped? Debate. ANZICS ASM. Oct 2018, Adelaide.
20. O'Callaghan PG, Pryor L, Gatley A, Sundararajan K, Dafoe S. Implementation of a structured multi-disciplinary ICU discharge process for long stay patients. American Thoracic Society. May 2019, Dallas (US). Poster.
21. Sundararajan K, O'Connell A, Flabouris A, Thompson C. Responding to clinical deterioration: Diurnal variation in afferent limb failure. American Thoracic Society. May 2019, Dallas (US). Poster.
22. Gluck S, Finnis M, Chapman M, Iwashyna T, Hii C, Sign A, Li Z, Babar A, Deane A. Development of a clinical tool to assess activity and participation. Florey Higher Degree Research Annual Conference. 2018, Adelaide.

23. Sundararajan K, Gatley A, Pryor L, Hynes D, O'Callaghan G. Experience of a Tracheostomy Outreach Service in a Quaternary referral centre - Insights from the Global Tracheostomy Collaborative. International Tracheostomy Symposium. Oct 2019, Melbourne.
24. Evans D. Controversies in the ICU Management of Burns. Australian Society of Anaesthetists National Scientific Congress. Oct 2018, Adelaide.
25. Visvanathan V, Kucia A, Reddi BAJ, Horowitz J. Takotsubo Syndrome Identified in the Intensive Care Unit: A Prospective Observational Study. ANZICS ASM. Oct 2018, Adelaide. Poster.
25. Murthy T, Grivell J, Hatzinikolas S, Chapple LS, Chapman MJ, Stevens JE, Malbert CH, Rayner CK, Horowitz M, Jones KL, Marathe CS. The magnitude of acceleration of gastric emptying in health is proportional to the level of glycemia. Australian Society for Medical Research. June 2019, Adelaide.
26. Murthy T, Grivell J, Hatzinikolas S, Chapple LS, Chapman MJ, Stevens JE, Malbert CH, Rayner CK, Horowitz M, Jones KL, Marathe CS. The magnitude of acceleration of gastric emptying in health is proportional to the level of glycemia. Florey Higher Degree Research. Sept 2019, Adelaide.
27. Flabouris A, Fernando J. An ICU update for anaesthetists, physicians and others. Perioperative Medicine SIG (ANZCA). Oct 2018, Melbourne.

PhD Students

- 2017 - Samuel Gluck (University of Adelaide)
 2018 - Tej Murthy (University of Adelaide)

Honours Student

- 2019 - James Whitehead (University of Adelaide)

Research Prizes

1. Raith E. Dr Roneal Naidu Memorial Prize for Impactful Surgical Research, Faculty of Health and Medical Sciences, University of Adelaide, 2018.
2. Chapman MJ. Faculty of Health and Medical Sciences Executive Dean's Award for Research. University of Adelaide, 2018.
3. Gluck S. ANZICS CTG Novice Investigator Rapid Fire Presentation Winner. Inaugural novice investigator session. Noosa (QLD), 2019.
4. Gluck S. Adelaide Medical School Prize Prize for best poster presentation, Annual Florey Postgraduate Research Conference. Adelaide, 2018.

ICU Registrar Positions at the RAH

If you are interested in a position as an Intensive Care Registrar at the RAH, applications can be made at <http://jobs.sahealthcareers.com.au/caw/en/job/686061/icu-medical-practitioner-calhn-pool-august-2019-august-2020>, or contact Dr Alex Wurm at Alex.Wurm@sa.gov.au.

If you are thinking about ICU as a career and would like to discuss your options, Drs Nick Edwards (chopper45@iprimus.com.au), Jon Fraser (jdfrazer62@gmail.com), Richard Strickland (rich.stricko@gmail.com) and Ken Lee (kenneth.Lee@sa.gov.au) are the ICU (CICM) Supervisors of Training at the RAH – and we are always happy to have a chat.



Simulation Sessions

Regular ECMO cannulation and connection simulations are conducted, using a manikin with silicone gel groin models 'cooked' in Michael Farquharson's kitchen. Two of our ICU Consultants can be seen here in action under his supervision.

Simulation Sessions

Multidisciplinary simulation sessions involving ICU Registrars are held twice a week in our Sim Lab. They are facilitated by ICU Simulation Clinical Nurses and our Chief and Senior Registrars. Registrars complete at least one practical simulation every 3 months.



Research Grants

- 2019 Chapple L, Weinel L, Summers M, O'Connor S, Horowitz M, Chapman M. Royal Adelaide Hospital Clinical Project Grant.
Project Title: Nutrient regulation in survivors of critical illness.
Value: \$48,425
- 2019 Sierp E, Chapple L, Yandell R, Kurmis R, Chapman M. Royal Adelaide Hospital Allied Health Grant.
Project Title: Factors that influence severity and timing of gastrointestinal motility in critically ill burn patients.
Value: \$26,618
- 2019 Murthy T. European Association for the Study of Diabetes - Travel Grant.
Value: E1,200
- 2018 Jones KL, Chapman M, Horowitz M, Chapple L, Marathe C. University of Adelaide, Faculty of Health and Medical Sciences (2018 Research Infrastructure Funding Award).
Project Title: Digirad/ERGO Portable Gamma Camera for the scintigraphic measurement of gastric emptying in 'high-risk' clinical research.
Value: \$136,784
- 2018 Jones KL, Chapman M, Horowitz M, Chapple L, Marathe C. The Ian Potter Foundation.
Project Title: Digirad/ERGO Portable Gamma Camera for the scintigraphic measurement of gastric emptying in 'high-risk' clinical research.
Value: \$200,000
- 2018 Jones KL, Chapman M, Horowitz M, Chapple L, Marathe C. The Hospital Research Foundation.
Project Title: Digirad/ERGO Portable Gamma Camera for the scintigraphic measurement of gastric emptying in 'high-risk' clinical research.
Value: \$150,000
- 2018 Raith E. Royal Adelaide Hospital Clinical Project Grant.
Project Title: PRevention of Opioid-associated constipation in Ventilated INTensive CarE patients (PROVINCE) Study.
Value: \$50,000
- 2018-20 Chapman M, Deane A, Soenen S, van Loon L, Jones K, Chapple L. NHMRC Project Grant.
Project Title: Protein Absorption and Kinetics in Critical Illness (APP1144496).
Value: \$1,233,268
- 2018-19 Chapman MJ, Deane AM, Young PJ. Hospital Research Foundation; Translational Project Grant.
Project Title: The effect of protein dose on clinical outcomes in critically ill patients (TARGET_Protein).
Value: \$250,000
- 2018 Chapple L, Chapman M, Summers M, Jones K, Deane A. American Society Of Parenteral And Enteral Nutrition Grant.
Project Title: The effect of standard versus energy dense feeds on gastric emptying and glucose metabolism in critically ill patients.
Value: \$25,000 USD
- 2018 Gluck S, Worthington M, Nadel M, Finnis M, Chapman M, Iwashyna TJ, Deane AM. Royal Adelaide Hospital Clinical Project Grant.
Project Title: An open-source smartphone application to monitor patients prior to and following elective coronary artery bypass grafting: A prospective cohort study (The SMART-HEART Study).
Value: \$16,805
- 2018 Chapple L, Summers M, Weinel L, Chapman M. Royal Adelaide Hospital Clinical Project Grant.
Project Title: Resolution of Elements Influencing Nutritional Status After criTical illnEss (REINSTATE trial).
Value: \$49,959
- 2018 Gluck S. Society Of Critical Care Medicine. THRIVE Grant.
Project Title: The feasibility of establishing a peer support group for ICU survivors at the Royal Adelaide Hospital.
Value: \$1,000 USD
- 2018 Raith E, Bellette J, Starney L, Millar J, d'Udekem Y. WCH Foundation MS McLeod Departmental Grant.
Project Title: The characteristics and outcomes of children undergoing cardiac surgery in Australia.
Value: \$10,000

- 2017-21 Ridley E, Chapple L, Davies A, Deane A, Hodgson C, Cooper J, Bailey M. Baxter Healthcare Corporation, Global Scientific Review Council.
Project Title: Intensive nutrition in critically ill adults: A pilot randomised controlled study.
Value: \$2,400,000
- 2017-21 Deane AM, Finfer S, Cook D, Myburgh J, Young P, Guyatt GH, Chapman MJ and Venkatesh B. NHMRC Project Grant.
Project Title: Re-Evaluating the Inhibition of Stress Erosions (REVISE): Gastrointestinal bleeding prophylaxis in ICU.
Value: \$2,955,164
- 2017-18 Deane A, Poole A, Kar P, Finnis M, Martensson J, Finfer S, Horowitz M and Bellomo R. Intensive Care Foundation Grant.
Project Title: Liberal glUcose Control in critically ill patient with pre-existing type 2 Diabetes (LUCID): a phase IIB multi-centre single-blinded parallel group randomised control trial.
Value: \$25,000
- 2015-19 Chapman MJ, Peake S, Bellomo R, Horowitz M, Davies AR, Deane AM. NHMRC Project Grant.
Project Title: The Augmented versus Routine approach to Giving Energy Trial (TARGET).
Value: \$3,534,236
- 2015-19 Young PJ, McArthur CJ, Henderson SJ, McGuinness SP, Freebairn RC, Parke RL, Mackle DM, Peake SL, Chapman MJ, Bellomo R. Health Research Council Of New Zealand Project Grant.
Project Title: The Augmented versus Routine approach to Giving Energy Trial (TARGET).
Value: \$1,200,000 NZD
- 2013-18 Horowitz, M, Wittert G, Clifton P, Rayner C, Chapman I, Feinle Bisset C, Jones K, Noakes M, Chapman M, Nguyen N. NHMRC CRE Grant 1041687.
Project Title: Centre of Research Excellence in Translating Nutritional Science to Good Health.
Value: \$2,499,990

Current Research Funding Scholarships

- 2019 - 2022: NHMRC Early Career Fellowship. Optimal protein dose to attenuate muscle atrophy, improve functional recovery and increase survival in critically ill patients.
Investigator: Chapple L. Value: \$327,192.00.
- 2018 - 2019: The Hospital Research Foundation Early Career Fellowship.
Investigator: Chapple L. Value: \$240,000.
- 2018 - 2020: Faculty of Health and Medical Sciences Divisional Scholarship (University of Adelaide).
Investigator: Murthy T. Value: \$28,000 per year.
- 2018 - 2020: Dawes top-up Scholarship for PhD students.
Investigator: Murthy T. Value: \$5,000 per year.
- 2019: SAICA Research Travel Grant. To present at European Association for the Study of Diabetes (Barcelona, 2019 Sept).
Investigator: Murthy T. Value \$10,000.
- 2017 - 2019: Royal Adelaide Hospital AR Clarkson Scholarship.
Investigator: Gluck S. Value: \$150,000.
- 2016 - 2018: Royal Adelaide Hospital AR Clarkson Scholarship.
Investigator: Ali Abdelhamid Y. Value: \$300,000.



Tuesday Journal Club and Registrar Teaching

Journal Club is held every Tuesday afternoon, where senior registrars present and critique a combination of recent and seminal journal articles, or registrars present their Clinical Audits. This is followed by a Registrar Teaching Session which varies in content between registrar-led presentations, senior registrar or consultant-led topic teaching, and ECHO/ultrasound teaching.

Looks like we were a bit short of chairs for this session....

ICU Registrar Involvement in Research and Clinical Audits

Research

Registrars, and ICU (CICM) trainees in particular, are actively encouraged to participate in research on the Unit, both in terms of personal research and larger trials. Significant support is also available for CICM trainees for their Formal Project requirements, and they are encouraged to present and publish their results.

The Tub Worthley Travelling Scholarship Dinner is run annually in May with the support of Pfizer, and provides trainees with an excellent opportunity to present their research to Intensive Care colleagues from across the State, and compete for the Scholarship.

Trainees are also encouraged to present their research at the annual Australian and New Zealand Intensive Care Society (ANZICS) ASM and the CICM ASM.

Clinical Audits

It is also an expectation that all CICM trainees at the RAH will undertake a clinical audit every 6 to 12 months in an aspect of critical care practice that interests them, which they will present at one of the weekly ICU Journal Clubs. We also recommend that residents and registrars not in the CICM training program take the opportunity to undertake a clinical audit and they will be actively encouraged and supported to do so. After a slow start to this initiative in 2018, it has really gained some traction this year, with audits now being regularly presented by the registrar group.

Upon successful completion, registrars may also have the opportunity to present their findings further afield depending on the quality and findings of their audit. They will be presented with a formal document of completion that can be used in support of future competitive applications.

This audit activity also forms an important component of the training assessment for CICM trainees.

South Australian Intensive Care Association

SAICA is a not-for-profit association that oversees a number of educational courses in South Australia as well as promoting, encouraging and financially supporting educational and research activities in the area of Intensive Care Medicine.

It also awards travel grants to assist Intensive Care registrars and Honours/PhD students to present their research at international or national meetings.

Activities this year have included;

- purchase of Blue Phantom ultrasound model
- upgrade of iSimulate at QEH and FMC
- purchase of simulation aids at RAH (eg cannulation pads)
- travel grant for Tej Murthy to present PhD research at European Association for the Study of Diabetes in Barcelona
- sponsorship of ICU Trainee Lecture Series day

- travel assistance for Nikki Yeo (England) to present RAH Bereavement Project at RAH Medical Grand Round and ANZICS ASM (Melbourne)
- Departmental Osler website subscription for ICU Registrars
- Departmental Crit-Iq website subscription for ICU Registrars and Consultants
- Survey Monkey and Dropbox subscriptions
- financial assistance for the transport of obsolete equipment and supplies from the old RAH to areas in need in Papua New Guinea (see below)
- covering the cost of this Newsletter

Application forms for travel scholarships can be obtained by contacting;

Nick Edwards, C/- ICU, Royal Adelaide Hospital
chopper45@primus.com.au



ICU Registrar Travel Stories

Gill

I came to Australia in August 2017 to treat a serious vitamin D deficiency contracted during my Intern year in Dublin, Ireland. After completing a 3 month RMO term in ICU during a general year on the wards, I managed to sneak back into ICU as a junior reg for another year. Although my mum didn't speak to me for a week, staying on a second year in ICU was a stroke of genius (and I can confirm she eventually got over it).

The first I had heard of Adelaide was when I was hustled into applying there by a disorganised intern friend who had not got his act together in time to apply to hospitals in Dublin-down-Under (AKA Perth). The minute we arrived however, it was clear to us that Adelaide was Australia's best kept secret. Nestled between beautiful gum-tree forested hills and an endless stretch of pristine sandy beach, Adelaide is a relaxed and friendly city with a brilliant food scene, many a cool bar and countless delicious cafes for an instagrammable brunch. Adelaide also enjoys one of the best climates in Australia, with long, warm (and only occasionally over 40 degrees) summers and dry winters, making it the perfect place for cycling, rowing, running, hiking and trying out all manner other weird Australian sports (looking at you surf lifesaving). Due to the exceptional rota-skills of the ICU secretary Kris and the very civil 38 hour working week, you will often have multiple days off between shifts to explore without taking annual leave. With Adelaide airport only 15 minutes from the RAH, and Aussie airport security being significantly looser than Europe (only at the airport 15 minutes before departure time? Be graaaaaand), short breaks to Melbourne, Sydney and further afield to Bali and beyond are real possibilities. That said, you could (and should!) easily spend a lifetime exploring beautiful SA, where you'll find beautiful beaches, arid deserts, eucalyptus forests, world class wineries and some of the most lovely and friendly people I have ever met.

On the work front, the RAH ICU is an extremely sociable, friendly department with approachable consultants and an experienced reg cohort consisting of both international and local trainees. Teaching is an integral part of the ICU, and regs can enjoy a packed schedule from journal club to radiology meetings, alongside practical teaching in critical care US, ECMO and more. You'll also have the privilege of working in a brand new, very shiny, state of the art hospital with brilliant nursing, medical and allied health staff. I enjoyed my work just as much as my holidays while I was at the RAH.

It was with much regret that I applied for anaesthetics/ICU training back at home (under threat of excommunication by the Mother), but were I to do it all again, top tips would be:

1. Bring a coat! August is actually winter.
2. Get into a Frequent Flyer programme early – many banks/supermarkets offer opportunities to earn points, which rack up and get you tasty free flights around Australia! See Dr. K. Lee for all the tips...
3. Join a local sports club, get to know some locals. Adelaide people are the best. And they might invite you to their lush weddings in a winery in a few years time...
4. During the Fringe, make it your business to go!
5. See as much of SA as you can before you go further afield. Highlights: Henley beach and Grange, Mount Lofty Botanic Gardens, Kangaroo Island, Flinders Ranges, Deep Creek, Victor Harbour, Eyre Peninsula, Yorke Peninsula, the Hills, Clare Valley...
6. When you do go further afield: Red Centre/Alice Springs, Tasmania are a MUST!
7. Leave Bank Street Social before they have to ask you to.
8. Swag in a bag is always a good idea.



Mount Sonder (NT)



Rowing on West Lakes

Anneleen

After finishing my anaesthetics training, I left Belgium in the middle of summer to arrive in Adelaide in wintertime. Luckily I experienced a warm welcome in the old RAH, or I would have frozen to death in Australia. After a few days I was part of the move to the nRAH. What an interesting experience!

I soon felt at home in Adelaide and in the RAH. So I decided to stay a little longer and ended up staying 18 months. RAH ICU is a great place to work with interesting cases and lovely colleagues. And during the preparation for my Belgian ICU exam, I got a lot of support from fellow registrars and consultants.

But there's more to life than work and study. And Adelaide and South Australia has heaps to offer to keep yourself busy. Like looking for leafy sea dragons while diving in Rapid Bay, hiking in Deep Creek, spotting some great whites (yes, sharks) in Port Lincoln or go camping in Flinders Ranges. A little further away my favorites were the Gibb River Road (and the Kimberlies) and Tasmania.

I'm back in Europe now, working in anaesthetics, but I will never forget the time I had down under.



Remarkable Rocks, Kangaroo Island

Sanjeev

After 10 years, 2018 was the year we finally went back to Australia. Not as students, I finished my training program as a Dutch intensivist and my girlfriend as a GP. The good thing about the country is that it doesn't change much. It is safe, easy to travel around and there is so much to see. It has a magical feeling as if time stops and life becomes too easy and relaxed. We chose Adelaide because we like the city and it has a lot to offer. Of course everyone goes to Kangaroo Island and the wineries. My secret tip will be to go and explore the peninsulas and drive up north to Lake Eyre.

I think a lot of the overseas specialists work long shifts and spend most of their time at work or in traffic. The pleasure of working in Australia is that the balance is perfectly orientated towards improving the quality of life and letting you spend more time with your family or loved ones.



The Royal Adelaide is an amazing place, not only because the hospital is brand new and looks nice from the outside (that's not the general opinion regarding the architecture though...) but the vibe in the unit is special and everybody made me feel welcome from the first day. The consultants are actively involved in patient care, there is a good teaching environment and everything is a team effort. The roster is tailored to your wishes and thus you will be able to work but also see everything Australia has to offer.

I can only conclude by saying this year has been an unforgettable adventure. I go back more experienced in knowledge and with renewed energy.



New Year's Eve in Sydney

Ajay and Shweta

I (Ajay) moved to Australia from India in October 2017. I had a bit of a wobbly start, but after that it has only been looking up. The last year has been brilliant because I got married [Shweta didn't make me write this ;-)].

Australia is a beautiful country and never ceases to amaze. You don't need a map to explore Australia. Just put your foot on the gas pedal, you are in for a scenic drive in any direction you go. I visited Mount Gambier and Robe which were quite stunning. The drive on the Great Ocean Road never fails to dazzle you. The sunset on the Mount Lofty brings the peace and calm, I could go there every evening if I could. Needless to say, the wines here in Adelaide are the best in the world as even the doctors here are passionate about brewing [Read between the l(w)ines].

Shweta joined me in 2018 and from the bustling city life of Melbourne to the beautiful beaches in the Gold Coast, we have experienced it all. The most memorable trip for us was to New Zealand which was one week of witnessing nature at its best. We do have a few places on our list we hope to visit this year like the vineyards around Adelaide and also Tasmania. We also hope to catch the Aurora Australis someday.



It's been great to work with a friendly bunch of registrars and also extremely supportive consultants. We have been 'aussiefied' from avid tea lovers to morning coffeeholics. The aussies also gave us a new mantra in life; Work hard and party harder and we intend to live by it.

Hobbiton, New Zealand



Gold Coast, Queensland

RAH ICU Bereavement Project

In February 2018, the RAH ICU was the first ICU in South Australia to introduce bereavement follow-up. This quality assurance initiative aims to evaluate the end-of-life care in ICU and ensure that organ donation is considered as part of good end-of-life care.

Families of all dying patients are eligible for enrolment. Referrals are made to the on-call DonateLife specialist nurse coordinator (SD 81350) at medical consensus of end-of-life. After the patient's death, the nominated family member is given the brochure "What Happens When Someone Dies in Hospital?" and a letter outlining a telephone conversation planned for 6-8 weeks later. The structured telephone interview covers: (i) care and support for patient and family; (ii) communication with the family; (iii) medical treatment; and (iv) organ donation.

The collaboration between DonateLife and ICU teams has produced impressive results. In our first year there were 241 deaths in ICU with 93% referred for follow-up. We enrolled 201 families with 62% completing follow-up calls. Family members reported high quality end-of-life care, commenting on our compassion and professionalism. They also identified challenges, with constructive suggestions on how we might do even better. Family members also valued the call, for example: *"It's been great to talk openly about dad's death with someone. You're the first person I've had a meaningful conversation with about it. It's really important to honour my dad and talk on behalf of him because he was so well cared for."*

Thank you for your hard work and support. We look forward to sharing the full results with you at the ANZICS ASM (Melbourne) and the RAH Medical Grand Round in October 2019.

Bereavement Follow-up Team

Inaugural South Australian Intensive Care Trainee Network Night

This year we have been excited to introduce the SA Intensive Care Trainee Network. The intention of the network is to provide education and networking opportunities to all current and prospective ICU trainees in SA. As a small State it is vital that we have good connections between the ICUs to facilitate study groups, optimise training opportunities and share information and support amongst the trainee cohort.

We had our inaugural event in June, focusing on career skills and planning. The night was really well attended with trainees from all ICUs, as well as supervisors of training from RAH and FMC. We had presentations from a career adviser on CV writing, and from a new consultant on making the transition from registrar to consultant, things we often forget to plan for in our pursuit of exams.

This event was sponsored by Australian Health Professionals locum agency and supported by CICM, without which the event would not have been possible. Australian Health Professionals even brought a door prize of a new iPad, a very happy Tyler Heijnen walked away with this incredibly generous prize.

We are planning on running another event this year, with multiple themes already being suggested by attendees including research projects and subspecialty education talks. We are hoping to have the network continue on into the future and would welcome the involvement of any SA registrar in organising the next and subsequent events.

Kris Hayres and Aniket Nadkarni (ICU Registrars)



Upcoming Intensive Care Courses 2019 / 2020

SOUTH AUSTRALIAN INTENSIVE CARE FELLOWSHIP EXAM (TUB'S) COURSE

12-14 February 2020.

30 candidates. For ICU Registrars within 12 months of the CICM Adult Fellowship Examination.

Conducted over 3 days, with sessions on the written paper, vivas, investigation interpretation, paediatrics and hot cases (at 4 hospitals). There is little didactic teaching, with the focus very much on practical sessions and trial exams. Further information at http://www.icuadelaide.com.au/course_fellowship.html

Applications open 10 September 2019.

Enquiries to Dr Nick Edwards, c/- ICU, Royal Adelaide Hospital.

Email: chopper45@iprimus.com.au

SOUTH AUSTRALIAN CICM PRIMARY EXAMINATION COURSE

1 course in 2020 (July) - dates to be confirmed.

24 candidates. For Registrars preparing for the CICM (or ANZCA) Primary Examination.

Application forms available at https://saica.com.au/course_primary.html.

Enquiries to Dr Mark Finnis, c/- ICU, Royal Adelaide Hospital.

Email: mark.finnis@adelaide.edu.au

SOUTH AUSTRALIAN CRITICAL CARE ULTRASOUND COURSE

29-30 August 2019 (full). And March 2020 (date to be confirmed).

16 candidates. 2 day course on focussed cardiac, lung, abdominal and procedural ultrasound relevant to critical care.

Enquiries to Dr Michael Farquharson, C/- ICU, Royal Adelaide Hospital.

Email: michael.farquharson@sa.gov.au

BASIC ASSESSMENT AND SUPPORT IN INTENSIVE CARE (BASIC) COURSE

11-12 November 2019. And February 2020 (dates to be confirmed).

25 candidates. 2 day course. Further information on the course at https://saica.com.au/course_basic.html.

Enquiries to Dr Ken Lee, C/- ICU, Royal Adelaide Hospital.

Email: Kenneth.Lee@sa.gov.au

POSTOPERATIVE CARE OF THE CARDIOTHORACIC PATIENT (PCCP) COURSE

8 August 2019 and February 2020 (date to be confirmed).

An internal 1 day course for RAH Registrars who will be looking after cardiothoracic patients in the ICU.

Enquiries to Dr Jon Fraser, c/- ICU, Royal Adelaide Hospital.

Email: jdfrazer62@gmail.com

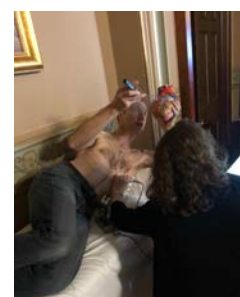
CARDIOTHORACIC ADVANCED LIFE SUPPORT (CAL S) COURSE

2 September 2019. Subsequent dates to be confirmed. 6 courses per year.

14 candidates. 1 day course for RAH medical and nursing staff.

Enquiries to Dr Jon Fraser, c/- ICU, Royal Adelaide Hospital.

Email: jdfrazer62@gmail.com



Ultrasound Course practical session

Some pictures from the past year....



Contact

Any feedback about this Newsletter, or achievements/details you would like included in the next Newsletter, should be directed to Dr Nick Edwards (chopper45@iprimus.com.au).