

# RAH INTENSIVE CARE



We finally moved into the new RAH in September 2017 (pictures within....), and it is evidently the 3rd most expensive building in the world! It was an enormous logistic exercise moving a hospital of that size and was an interesting experience for all involved. It is still in the centre of Adelaide, at the opposite end of North Terrace to the old hospital, and incorporates a total of 3.8 hectares of landscaped environment, including more than 70 internal themed (eg Aboriginal and Spinal Garden) courtyards and sky gardens across the 9 levels. This creates a 1.6 hectare footprint of greenspace within the hospital. There are 700 overnight beds and 100 day beds. Right next door is the South Australian Health and Medical Research Institute (SAHMRI), which is South Australia's first independent health and medical research institute, and is home to more than 700 researchers.

Training and Research remain major foci of our Unit, and in this Newsletter we highlight some of our achievements over the past 12 months. We have also included some information about the new hospital and ICU, the role and activities of SAICA, travel logs from some of our registrars from overseas (and tips for future registrars), our mentoring program, and a list of upcoming local courses. 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 2017 to June 2018, we admitted 3466 patients. Of all the patients admitted during that time, 68% were unplanned. About 14% were direct admissions following cardiac surgical procedures, 10% were trauma, 7% following neurosurgery, 7% thoracic surgery, 9% 'sepsis', 5% pneumonia without sepsis, 4% drug overdose, 3% ENT surgery, 3% following cardiac arrest, and 2% gastrointestinal bleeding. Operating theatres were the source of admission for 49% of our patients, 32% were admitted directly from the Emergency Department, 14% from the wards, and 4.4% 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.

## Education and Training

Congratulations to Nikki Yeo who passed the CICM Fellowship Exam in October, and has now moved to Cambridge for 12 months to work as a Clinical Fellow in the Neurosciences and Trauma Critical Care Unit in Addenbrookes in London.

After also passing the Fellowship Exam last year, Jacob Abraham left us in August to work as a Senior Registrar at Flinders Medical Centre (FMC), before taking up a 12 month Critical Care Echocardiography Fellowship at St George and St Vincent's Hospitals in Sydney this year.

Congratulations also to Tim Webber for passing the CICM Primary Exam.

The Eleventh Annual Tub Worthley Travelling Scholarship was won by Kristin Hayres (FMC) in May this year for her presentation, 'Objective measurement of physical function prior to and following critical illness'. This is awarded for the best registrar research presentation at the annual South Australian ANZICS meeting. Registrars from the RAH who presented their research on the night were Sam Gluck, Emily Gannon, Nikki Yeo and Minny Ohja. As an aside, Kristin joined us from FMC in August for the next 12 months, and we welcome her to the Unit.

The 35th 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 next 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.

The South Australian Primary Examination Course was held twice in 2018, but this will be reduced to only one course in 2019. 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.

The 5th Trainee Lecture Series day was held in November, and was chaired by one of our Chief Registrars, Michael Davies. Speakers were Michael Stokes (Cardiology), Ben Reddi (ICU), Michelle Damin (Haematology) and Emily Rowe (Infectious Diseases), and it was attended by over 30 registrars from across the State.

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 half-day Postoperative Care of the Cardiothoracic Patient Course, an extended patient-scenario discussion, and a session on CVC insertion.

The weekly BICMed Course that we have run for more than 10 years (developed by one of our past registrars, Nai An Lai) has been replaced this year with a series of specific topic-based sessions at regular intervals within the Tuesday Registrar Teaching Sessions.

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 will not be shared with any external person or group unless at the express wish of the trainee concerned.

A number of the Consultants have volunteered to participate and feel this is worthwhile. They will work in pairs and each trainee will be assigned to one pair in the first instance. We hope that this will ensure 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 2017 - June 2018

1. 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 Jul 20. doi: 10.1007/s00134-018-5314-6.
2. Maiden MJ, Finnis ME, Peake S, McRae S, Delaney A, Bailey M, Bellomo R. Haemoglobin concentration and volume of intravenous fluids in septic shock in the ARISE trial. *Crit Care* 2018 May;22(1):118.
3. Kar P, Jones KL, Plummer MP, Ali Abdelhamid Y, Giersch EJ, Summers MJ, Hatzinikolas S, Heller S, Horowitz M, Deane AM. Antecedent Hypoglycemia Does Not Attenuate the Acceleration of Gastric Emptying by Hypoglycemia. *J Clin Endocrinol Metab.* 2017 Nov 1;102(11):3953-3960.
4. Plummer MP, Notkina N, Timofeev I, Hutchinson PJ, Finnis ME, Gupta AK. Cerebral metabolic effects of strict versus conventional glycaemic targets following severe traumatic brain injury. *Crit Care.* 2018 Jan 25;22(1):16. doi: 10.1186/s13054-017-1933-5.
5. Chapple L, Deane A. From dysmotility to virulent pathogens: Implications of opioid use in the ICU. *Curr Opin Crit Care* 2018;24(2):118-123.
6. Chapple LA, Chapman M, Shalit N, Udy A, Deane A, Williams L. Barriers to Nutrition Intervention for Patients With a Traumatic Brain Injury: Views and Attitudes of Medical and Nursing Practitioners in the Acute Care Setting. *JPEN J Parenter Enteral Nutr.* 2018 Feb;42(2):318-326.
7. 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 Mar 1:267659118763266. doi: 10.1177/0267659118763266.
8. Hohl A, Zanela FA, Ghisi G, Ronsoni MF, Diaz AP, Schwarzbald ML, Dafre AL, Reddi B, Lin K, Pizzol FD, Walz R. Luteinizing Hormone and Testosterone Levels during Acute Phase of Severe Traumatic Brain Injury: Prognostic Implications for Adult Male Patients. *Front Endocrinol (Lausanne).* 2018 Feb 13;9:29.
9. Flabouris A, Mesecke M. Rapid Response Team Calls that overlap in time: Incidence and associated outcomes. *Crit Care Resusc.* 2017 Sep;19(3):214-221.
10. Bellomo R, Kellum JA, Ronco C, Wald R, Martensson J, Maiden M, Bagshaw SM, Glassford NJ, Lankadeva Y, Vaara ST, Schneider A. Acute kidney injury in sepsis. *Intensive Care Med.* 2017 Jun;43(6):816-828.
11. Ou L, Chen J, Hillman K, Flabouris A, Parr M, Assareh H, Bellomo R. Hospital variability of postoperative sepsis and sepsis-related mortality after elective coronary artery bypass grafting surgery. *Journal of Critical Care.* 2018 Jul 17;47:232-7.
12. Ovenden C, Plummer MP, Selvanderan S, Donaldson TA, Nguyen NQ, Weinel LM, Finnis ME, Summers MJ, Ali Abdelhamid Y, Chapman MJ, Rayner CK, Deane AM. Occult upper gastrointestinal mucosal abnormalities in critically ill patients. *Acta Anaesthesiologica Scandinavica* 2017. 61(2):216-223.
13. Deane AM, Hodgson CL, Young P, Little L, Singh V, Poole A, Young M, Mackle D, Lange K, Williams P, Peake SL, Chapman MJ, Iwashyna TJ. The rapid and accurate categorisation of critically ill patients (RACE) to identify outcomes of interest for longitudinal studies: a feasibility study. *Anaesth Intensive Care.* 2017 Jul;45(4):476-484.
14. Gluck S, Chapple LA, Chapman MJ, Iwashyna TJ, Deane AM. A scoping review to determine the use of wearable devices to evaluate outcomes in survivors of critical illness. *Critical Care and Resusc.* 2017 Sep;19(3):197-204.
15. Davies ML, Chapple LS, Chapman MJ, Moran JL, Peake SL. Protein delivery and clinical outcomes in the critically ill: a systematic review and meta-analysis. *Crit Care Resusc* 2017 19(2) 117-127.
16. 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. *J Parenter Enteral Nutr.* 2018 Jul;42(5):949-959.
17. The TARGET investigators (with Chapman MJ co-chair and chief investigator) on behalf of the Australian and New Zealand Intensive Care Society Clinical Trials Group. Statistical Analysis Plan for The Augmented versus Routine approach to Giving Energy Trial (TARGET). *Crit Care Resusc* 2018; 20 (1): 15-21.
18. The TARGET investigators (with Chapman MJ co-chair and chief investigator) on behalf of the Australian and New Zealand Intensive Care Society Clinical Trials Group. Study Protocol for The Augmented versus Routine approach to Giving Energy Trial (TARGET). *Crit Care Resusc* 2018; 20 (1): 6-14.
19. 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. *J Parenter Enteral Nutr.* 2018 Apr 27. doi: 10.1002/jpen.1163.
20. Schoeman T, Sundararajan K, Micik S, Sarada P, Edwards S, Poole A, Chapman M. The impact on new-onset stress and PTSD in relatives of critically ill patients explored by diaries study (The "INSPIRED" study). *Aust Crit Care.* 2017 Dec 15. pii: S1036-7314(17)30263-1. doi: 10.1016/j.aucc.2017.11.002.

21. Sampson B, Wilson S, Finnis M, Jones P, Hodak A, O'Connor S, Chapman M. Physiological management of brain dead organ donors in South Australian Intensive Care Units. Accepted by Progress In Transplantation 2018.
22. Arabi Y, Casaer MP, Chapman MJ, Heyland D, Ichai C, Marik PE, Martindale RG, McClave SA, Preiser J-C, Reignier J, Rice TW, Van den Berghe G, van Zanten ARH, Weijs PJM. The Intensive Care Medicine Research Agenda in Nutrition and Metabolism in Adults. Invited review. *Intens Care Med* 2017 Sep;43(9):1239-56.
23. Deane AM, Peake SL, Chapman MJ. The disconnect between nutrition guidelines and evidence: How much protein should I prescribe to this critically ill patient? *Crit Care Resusc.* 2018 Mar;20(1):3-5.
24. Chapple L, Weinle L, Ali Abdelhamid Y, Summers M, Nguyen T, Kar P, Lange K, Chapman M, Deane A. Observed appetite and nutrient intake three months after ICU discharge. *Clin Nutr.* 2018 May 9. pii: S0261-5614(18)30174-2. doi: 10.1016/j.clnu.2018.05.002.
25. Stevens NE, Chapman MJ, Fraser CK, Kuchel TR, Hayball JD, Diener KR: Therapeutic targeting of HMGB1 during experimental sepsis modulates the inflammatory cytokine profile to one associated with improved clinical outcomes. *Sci Rep.* 2017 Jul 19;7(1):5850.
26. Sun EW, de Fontgalland D, Rabbitt P, Hollington P, Sposato L, Due SL, Wattchow DA, Rayner CK, Deane AM, Young RL, Keating DJ. Mechanisms Controlling Glucose-Induced GLP-1 Secretion in Human Small Intestine. *Diabetes.* 2017 Aug; 66(8):2144-2149.
27. Yandell R, Chapman MJ, O'Connor S, Shanks A, Lange K and Deane AM. Postpyloric feeding tube placement in critically ill patients: Extending the scope of practice for Australian dietitians. *Nutr Diet.* 2018 Feb;75(1):30-34.
28. Yandell R, Wang S, Bautz P, Shanks A, O'Connor S, Deane A, Lange K, Chapman M. A retrospective evaluation of nutrition support in relation to clinical outcomes in critically ill patients with an open abdomen. *Aust Crit Care.* 2018 Jun 11. pii: S1036-7314(17)30318-1. doi: 10.1016/j.aucc.2018.04.004.
29. Gluck S, Chapple LS, Chapman MJ, Iwashyna TJ, Deane AM. A scoping review of use of wearable devices to evaluate outcomes in survivors of critical illness. *Critical Care Resuscitation.* 2017 Sep;19(3):197-204.
30. Maclure PT, Gluck S, Pearce A, Finnis ME. Patients retrieved to intensive care via a dedicated retrieval service do not have increased hospital mortality compared with propensity-matched controls. *Anaesth Intensive Care.* 2018 Mar;46(2): 202-206.
31. Gluck S, Summers MJ, Goddard TP, Andrawos A, Smith NC, Lange K, Iwashyna TJ, Deane AM. Wide Disagreement Between Alternative Assessments of Premorbid Physical Activity: Subjective Patient and Surrogate Reports and Objective Smartphone Data. *Crit Care Med.* 2017 Oct;45(10):e1036-e1042.
32. Ali Abdelhamid Y, Plummer MP, Finnis ME, Biradar V, Bihari S, Kar P, Moodie S, Horowitz M, Shaw JE, Phillips LK, Deane AM. Long-term mortality of critically ill patients with diabetes who survive admission to the intensive care unit. *Crit Care Resusc.* 2017 Dec;19(4):303-309.
33. Du YT, Kar P, Abdelhamid YA, Horowitz M, Deane AM. Glycated haemoglobin is increased in critically ill patients with stress hyperglycaemia: Implications for risk of diabetes in survivors of critical illness. *Diabetes Res Clin Pract.* 2018 Jan; 135:73-75.
34. Hermanides J, Plummer MP, Finnis M, Deane AM, Coles JP, Menon DK. Glycaemic control targets after traumatic brain injury: a systematic review and meta-analysis. *Crit Care.* 2018 Jan 19;22(1):11. doi: 10.1186/s13054-017-1883-y.
35. Raith EP, Ihle JF, Jamieson J, Kalff A, Bosco J. Idiopathic systemic capillary leak syndrome presenting as septic shock: A case report. *Heart Lung.* 2018 Jul - Aug;47(4):425-428.
36. Aung M, Raith EP, Williams E, Burrell AJC. Severe meningococcal serogroup W sepsis presenting as myocarditis: A case report and review of literature. *Journal of the Intensive Care Society* (In Press)
37. Rajendran V, Sundararajan K, Sawka A. Aorticaval Fistula Presenting as Type 2 Acute Myocardial Infarction in a Patient with Severe Arteriopathy. *Indian J Crit Care Med.* 2018 May;22(5):372-374.
38. Nguyen TAN, Ali Abdelhamid Y, Weinle LM, Hatzinikolas S, Kar P, Summers MJ, Phillips LK, Horowitz M, Jones KL, Deane AM. Postprandial hypotension in older survivors of critical illness. *Journal of Critical Care.* 2018 Jun; 45:20-26.
39. Lee HX, Hauser M, Jog S, Bautz P, Dobbins C. Non-operative management of isolated single abdominal stab wound: is it safe? 2018. *ANZ J Surg* 88:565-568.
40. Neuts A, Stessel B, Wouters PF, et al. Selective suprascapular and axillary nerve block versus interscalene plexus block for pain control after arthroscopic shoulder surgery: a noninferiority randomized parallel-controlled clinical trial. *Reg Anesth Pain Med.* 2018 Apr 14.

## Book Chapters

1. Maiden M, Chapman MJ. Multi-Organ Dysfunction Syndrome. 2017. *Oh's Intensive Care Manual*. Bersten AD, Soni N (Ed). Butterworth Heinemann. 8<sup>th</sup> edition.
2. 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.



3. Bear D, Chapple L, Puthuchear 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.
4. Rayner CK, Chapman MJ. Chapter 16: Nutrition and Parenteral Nutrition. Modern Gastroenterology for General Surgeons. 2018.

### A selection of presentations at scientific meetings

1. Chapple L. American Society of Parenteral and Enteral Nutrition, Nutrition Science and Practice Conference, Jan 2018 (Las Vegas, US). Pathways to a research career: How to stay in the research arena.
2. Gluck S. The Society of Critical Care Medicine's Critical Care Congress, Feb 2018 (San Antonio, US). Global position system derived values to describe outcomes after critical illness: an exploratory observational study.
3. Maiden MJ, Bilgrami I, Birardar V, Collins K, Crozier T, Duke G, Hunning E, Sun L, Wiharto M. Australia & New Zealand Intensive Care Society Annual Scientific Meeting, Oct 2017 (Gold Coast, Australia). Obstetric critical care admissions in Australia and New Zealand.
4. Chapman M. Australian & New Zealand Intensive Care Society 20th Annual Meeting on Clinical Trials in Intensive Care, Mar 2018 (Noosa, Australia). Update on TARGET study.
5. Chapple L. Australian & New Zealand Intensive Care Society 20th Annual Meeting on Clinical Trials in Intensive Care, Mar 2018 (Noosa, Australia). TARGET Point Prevalence study.
6. Deane A and Poole A. Australian & New Zealand Intensive Care Society 20th Annual Meeting on Clinical Trials in Intensive Care, Mar 2018 (Noosa, Australia). LUCID update.
7. Gluck S. South Australian Association of Internal Medicine Workshop, Aug 2018 (Adelaide, Australia). Smartphone data as a patient outcome.
8. Gluck S. Australia & New Zealand Intensive Care Society Annual Scientific Meeting, Oct 2017 (Gold Coast, Australia). Smartphone step-counts reliably and consistently estimate step-counts from a dedicated pedometer. Matt Spence Medal Presentation Session.
9. Gluck S. Australia & New Zealand Intensive Care Society Annual Scientific Meeting, Oct 2017 (Gold Coast, Australia). Global position system derived values to describe outcomes after critical illness: an exploratory observational study. Best Medical Free Paper Session.
10. Raith E. ANZCA Perioperative Medicine Special Interest Group Meeting, Oct 2017 (Sydney, Australia). Outcomes for Patients Admitted to ICU with Malignancy in Australia & New Zealand: 2000-2016.
11. Raith E. College of Intensive Care Medicine Annual Scientific Meeting, May 2018 (Hobart, Australia). Malignancy: No Longer A Death Sentence.
12. White M. Intensive Care Society of Ireland Annual Scientific Meeting, Jun 2018 (Dublin, Ireland). Fluids – An Update.
13. White M. Intensive Care Society of Ireland Annual Scientific Meeting, Jun 2018 (Dublin, Ireland). Future of our Intensive Care Units: Training / Retention.

### PhD Students

- 2016 - Yasmine Ali Abdelhamid (University of Adelaide)  
 2017 - Samuel Gluck (University of Adelaide)  
 2018 - Tej Murthy (University of Adelaide)



### 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 an on-line BLS/ALS Moodle, and at least one practical simulation every 3 months.

## Research Grants

- 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, Weinl 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.  
Project Title: Thrive Peer Support Collaborative (ICU Survivors).  
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
- 2017 Ali Abdelhamid Y, Jones K, Horowitz M, Kar P, Phillips L, Nguyen T and Deane AM. Royal Adelaide Hospital NHMRC 'Near Miss' Grant.  
Project Title: Prevalence, mechanisms and impact of post-prandial hypotension in elderly survivors of ICU.  
Value: \$49,207
- 2017 Chapman M, Deane A, Soenen S, Van Loon L, Jones K, Chapple L, Yandell R, O'Connor S, Horowitz M, Lange K. Royal Adelaide Hospital NHMRC 'Near Miss' Grant.  
Project Title: Protein absorption and kinetics in critical illness.  
Value: \$57,205
- 2017 Stephens JE, Jones KL, Rayner CK, Kar P, Deane AM and Horowitz M. Royal Adelaide Hospital Research Fund.  
Project Title: Acute hypoglycaemia and gastric emptying – 'dose-response' and impact on oral drug absorption.  
Value: \$30,000

- 2017 Horowitz M, Rayner CK, Jones KL, Feinle-Bisset C, Chapman MJ, Deane AM. Rebecca L Cooper Medical Research Foundation Grant.  
Project Title: Magpix multiplex for analysing gut hormones.  
Value: \$25,000
- 2017 Chapman M, Deane A, Soenen S, Chapple L. The University Of Adelaide Investment For Success NHMRC Near Miss Grant.  
Project Title: Ultrasound probe for Measurement of muscle thickness.  
Value: \$10,080
- 2017 Chapple L, Summers M, Deane A, Chapman M. AusPEN Project Grant.  
Project Title: Long-term effects of critical illness on energy intake, appetite, gastric emptying and appetite-regulating hormones in adult survivors of intensive care unit admission.  
Value: \$20,000
- 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.
- 2017 - 2018: European Society of Parenteral and Enteral Nutrition Fellowship  
Investigator: Chapple L. Value: €49,988
- 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 3 registrars present and critique a combination of recent and seminal journal articles. This is followed by a Registrar Teaching Session which varies in content between registrar-led presentations, senior registrar-led topic teaching, and ECHO/ultrasound teaching. Sanjeev Grewal is seen here sharing pearls of wisdom...

## 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

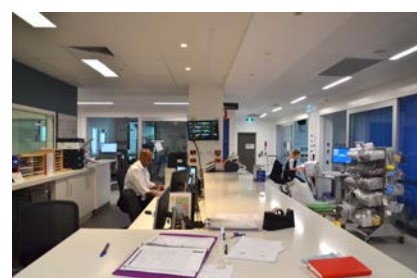
It is also an expectation that all CICM trainees at the RAH will undertake a clinical audit every 6 to 12 months in an aspect of critical care practice that interests them, which they will present at one of the weekly ICU Clinical Audit meetings. We also recommend that residents and registrars not in the CICM training program take the opportunity to undertake a clinical audit and they will be actively encouraged and supported to do so.

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 will also form an important component of the training assessment for CICM trainees.

## More About the New RAH

The ICU is an adult, quaternary-referral, general Unit, with a very broad casemix, including Cardiothoracic Surgery, Neurosurgery, Spinal Surgery, Vascular Surgery, Gastrointestinal and Hepatobiliary Surgery, ENT, Trauma, Burns, Cardiology, Respiratory Medicine, Gastrointestinal Medicine, Oncology and Haematology, and Renal Medicine (including transplantation). The Unit currently runs as 4 pods of 12 beds, but is expandable to 60, and then 72 beds, in the future. Hopefully, a long time in the future.... We work in teams, and during the day, each Pod has its own ICU Consultant, Chief or Senior Registrar, 2 other Registrars, and often 5th or 6th year medical students. A further Registrar performs a Consult role, reviewing patients on the wards or in the Emergency Department. At night, there are 6 Registrars in house, one in each of the Pods, and a further two who have oversight and consult roles.





## ICU Registrar Travel Stories

### Emily

What an amazing year!... I moved over from the UK to Adelaide nearly a year ago for an Australian adventure, and so far everything has exceeded my expectations!

Work is great, everyone in the unit is welcoming and friendly and I've never worked in a department that gets along so cohesively. And to top it off the RAH covers a multitude of specialties so the ICU experience is priceless.

The work-life balance is perfect, giving me the time to explore both Adelaide, (currently working my way through cellar door bingo) and wider Australia (nearly all states checked, territories still to go!)

Adelaide is an excellent place to live; it's such a friendly city with great restaurants and bars. It's surrounded by gorgeous beaches and amazing wine country - why would you want to be anywhere else?!

Australia is blessed with incredible variety; from the outback's dry red deserts to the tropical rainforests of the east coast. You'd need a lifetime to explore it all but some of my travel highlights include:

- Sailing through the Whitsunday islands and diving the Great Barrier Reef; swimming with turtles, stingrays and sharks!
- Road-tripping up the West coast, bush camping and swimming with whale sharks in Ningaloo WA.
- Kangaroo Island is definitely my favourite though ... a best-bits mini Australia! Gorgeous beaches with white sand and crystal seas, wild kangaroos (obviously), koalas, echidnas and dolphins, beautiful wineries with delicious wine and amazing views!



### Valerie

Before moving to Australia I finished my training in Anaesthetics and ICU in Belgium. After spending a year working and living in South Africa, I thought it'd be a good idea to get another experience abroad and so I packed my bags and came to Adelaide.

As convinced as I was that I came here to work, turns out that's just an excuse to get as much travelling done as is humanly possible. Certain rules must be followed, or not, depending on your level of adventuring. Night drives are good for seeing kangaroos from up close in the spotlight of your car, drives after night shift are good for sponsoring the caffeine industry, and camping in 40 degree weather will get you an AKI!

But look on the bright side, Australia has something to offer for everyone! Just on Adelaide's doorstep there is enough wineries to keep you going for a few years, lots of kayaking opportunities in Second Valley, the Coorong and even Port Adelaide, hiking around Deep Creek or Flinders Ranges, and definitely go to Kangaroo Island for a combination of all of the above.

But there's so much more, if you are willing to drive the distance! My favourites were definitely whale shark diving in Exmouth, the views in Tasmania, swimming through gorges in Karinjinji National Park and sailing the Whitsundays!

Some advice that I would like to share though:

- It doesn't matter what SPF you use, just reapply often, and even Aussies get it wrong.
- As some consultant (whose name I won't mention) believes, vitamin B does not work against midges.
- You will not die in Coober Pedy! Unless you're blind and do manage to fall in a hole.
- You might get murdered in Salt Creek, do not go camping by yourself!
- If anyone would have died in Australia, it would've been me, so you are all good! Enjoy!



### Laetitia

I moved to Australia in February 2017 after I have finished my training in anaesthesia in Belgium. My initial plan was to stay in Australia for one year and then go back home to start working in a hospital where I could do both anaesthesia and ICU.

Because of an unexpected change in my life, I decided to stay longer in Australia. I have been here for 1.5 years now and I am having the time of my life. The colleagues in ICU have been very supportive and I made friends for a lifetime.

I have never had so much time in my life to travel. I love living in this country. The people are lovely, the weather is great, the nature is awesome and I love my job.

My favourite places are: Cairns, Western Australia, Flinders Ranges and Tasmania. But to be honest, every place in Australia is unique and amazing. What I love about Adelaide is that it is one big town. Living here is not as expensive as Melbourne and Sydney and there are many stunning places close by: Barossa, Clare Valley, McLaren Vale, Port Noarlunga, Victor Harbour.

Thank you all for these precious memories.



## 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 scholarships to assist Intensive Care registrars and Honours/PhD students to present their research at international or national meetings.

Activities this year have included;

- upgrade of ALS resuscitation model (iSimulate) for QEH and FMC ICUs
- purchase of 2 cardiothoracic re-opening mannikins
- purchase of 2 ultrasound probes
- sponsorship of Echopraxis website upgrade
- sponsorship of Hot Case phone app for CICM trainees
- sponsorship of ICU Trainee Lecture Series day

- sponsorship of first Cardiac Advanced Life Support (CALS) Course to be held in South Australia
- 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



## Papua New Guinea and the old Royal Adelaide Hospital

When the old RAH closed in 2017, a considerable amount of medical equipment and supplies was not required in the new hospital and was donated in kind by the South Australian Government to interested organisations. SAICA was approached by Shila Paia, a PhD candidate at Flinders University, who established the Soil Child Program which aims to address poverty in remote communities in Papua New Guinea. Soil Child and its partnering organisations (Fulcrum Aid and Women in Development Foundation (PNG)) were keen to access some of the equipment, but there was no funding to actually transport it.

SAICA therefore agreed to donate funds for the purchase of a shipping container, land and shipping transport costs, and customs and other costs, to move the supplies from Adelaide to Lae Port in PNG, and then to health facilities in two provinces. In these provinces, there are 2 regional hospitals, 56 rural health centres and 158 community aid posts.

In addition, following an earthquake in the PNG Highlands earlier this year, a number of fundraisers gathered a large stock of blankets, clothes, toys and books. Accordingly, when the container was packed in August 2018, the remaining space was filled with these items.

The container has recently left Adelaide, and hopefully a shipment of this size will make a significant difference for those communities.

Further information can be found at <https://fulcrumaid.com.au/projects2/three-plus-papua-new-guinea>.



## Upcoming Intensive Care Courses 2018 / 2019

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

13-15 February 2019.

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](http://www.icuadelaide.com.au/course_fellowship.html)

Applications are closed.

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

Email: [chopper45@iprimus.com.au](mailto:chopper45@iprimus.com.au)

### SOUTH AUSTRALIAN CICM PRIMARY EXAMINATION COURSE

1 course in 2019 (July) - dates to be confirmed.

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

Application forms available at [http://www.icuadelaide.com.au/course\\_primary.html](http://www.icuadelaide.com.au/course_primary.html).

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

Email: [mark.finnis@adelaide.edu.au](mailto:mark.finnis@adelaide.edu.au)

### SOUTH AUSTRALIAN CRITICAL CARE ULTRASOUND COURSE

6-7 September 2018. And March 2019 (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](mailto:michael.farquharson@sa.gov.au)

### BASIC ASSESSMENT AND SUPPORT IN INTENSIVE CARE (BASIC) COURSE

November 2018 and February 2019 (dates to be confirmed).

25 candidates. 2 day course. Further information on the course at <http://www.aic.cuhk.edu.hk/web8/index.htm>.

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

Email: [Kenneth.Lee@sa.gov.au](mailto:Kenneth.Lee@sa.gov.au)

### POSTOPERATIVE CARE OF THE CARDIOTHORACIC PATIENT (PCCP) COURSE

9 August 2018 and February 2019 (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](mailto:jdfrazer62@gmail.com)

### CARDIOTHORACIC ADVANCED LIFE SUPPORT (CALS) COURSE

2 courses in November / December 2018 (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](mailto:jdfrazer62@gmail.com)



## Some Recent Celebrations and Farewells



## 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](mailto:chopper45@iprimus.com.au)).