

# RAH ICU

## Training and Research August 2016 - July 2017



This was another busy year for our staff in the Royal Adelaide ICU as we also readied ourselves for the move to the new RAH. We had hoped that we would have moved by now (see the last two Newsletters...), but the time has finally arrived! Monday September 4th.

In addition to our clinical work, training and research continue to be major priorities for the Unit, and in this Newsletter we highlight some of our achievements over the past 12 months. We have also included a list of upcoming local courses, the role and activities of SAICA, travel logs from some of our registrars from overseas (and tips for future registrars), and some information about the new hospital and our ICU.

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

### SOME OF OUR 2016/2017 ACHIEVEMENTS

#### RESEARCH

49 publications in peer-reviewed journals

Number of Awards and Prizes for RAH ICU staff including:

- 3 PhDs (1 medical, 2 allied health)
- 2016 AR Clarkson Scholarship
- 2017 AR Clarkson Scholarship
- 2017 Tub Worthley Travelling Scholarship
- European Society of Parenteral and Enteral Nutrition Fellowship
- 2016 ANZICS ASM Best Allied Health Paper

#### TEACHING AND TRAINING

CICM Fellowship Exam pass rate of 83% from 2002-2017 (cf overall Aus/NZ pass rate of 53%)

Highly successful Primary and Fellowship Exam Courses  
Involvement in number of other Courses including:

- RAH Basic Intensive Care Medicine (BICMed) Course
- BASIC Courses at RAH
- Critical Care Ultrasound Courses
- RAH Postoperative Care of the Cardiothoracic Patient Course

## RAH ICU Facts and Figures

The (old) Royal Adelaide Hospital ICU was the busiest Level 3 Unit in South Australia, and in the 12 months from July 2016 to June 2017, we admitted 3585 patients into the 42 beds (2481 ICU, 1104 Step Down Unit). Of all the patients admitted during that time, 78% were non-elective. About 13% were direct admissions following cardiac surgical procedures, 12% were trauma, 8% following neurosurgery, 7% thoracic surgery, 7% 'sepsis', 5% pneumonia without sepsis, 4% ENT surgery, 3.5% drug overdose, 3% following cardiac arrest, and 2% non-traumatic subarachnoid haemorrhage. Operating theatres were the source of admission for 49% of our patients, 31% were admitted directly from the Emergency Department, 16% from the wards, and 5% were transferred directly from another hospital to our ICU.

## Education and Training

Congratulations to Mike Davies and Jacob Abraham, who were successful in May with their first attempts at the CICM Fellowship Exam. This continues our fantastic record with that exam, having a pass rate over the past 15 years of 83%, as compared to an overall rate for all CICM candidates of 53% for the same period. Congratulations also to Ted De L'Isle for passing the Primary Exam earlier this year.

Palash Kar is close to submitting his PhD titled, 'Hyperglycaemia in the critically ill patient - ideal treatment and impact of the condition'. He returned to full-time clinical work in the Paediatric Intensive Care Unit at the Adelaide Womens and Children's Hospital at the start of this year, before rejoining us at the RAH in August.

The South Australian Tub Worthley Travelling Scholarship was won by Sam Gluck (RAH) in May this year for his 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. Other registrars from the RAH who presented their research on the night were Eamon Raith, Jacob Abraham, Tom Schoeman and Sandeep Sethi.

Unfortunately, after winning 3 Matt Spence Medals in a row for Best Registrar research presentation at the ANZICS Annual Scientific Meeting, we were unsuccessful last year - so the pressure is on our current registrar group....

The 34th running of the South Australian Intensive Care Fellowship Exam Course was held in February this year, with 32 candidates from Australia and New Zealand (photo). It

remains a daunting logistic exercise, with over 30 faculty this year, including 11 from the RAH and 6 from interstate. Hot Case practice sessions were held at the RAH, QEH, FMC and LMHS. There was a long waiting list this year, so if you are doing the Fellowship Exam in 2018, make sure you apply for the course as soon as registrations open in September this year or you may miss out.

In response to popular demand, we have increased the number of South Australian Primary Examination Courses to two per year (March and July). They continue to be held at Ayers House and are coordinated by Mark Finnis, 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 if you are interested, make sure you register early.

The South Australian Critical Care Ultrasound Course was held again in February for 16 candidates, with another planned for September. It is a 2-day course on focused cardiac, lung, abdominal and procedural ultrasound relevant to critical care.

One Trainee Lecture Series day has been held at Ayers House since the last Newsletter, with speakers including David Durham (FMC), Ken Lee (RAH/QEH), Sandy Peake (QEH) and Stewart Moodie (RAH/DonateLife SA). It was chaired by Mike Davies, one of our Senior Registrars, and was attended by 30 registrars from across the State. We plan to hold at least one more day before the end of the year.

The RAH BICMed Course is accredited by CICM as an introductory ICU Course and can be counted towards CICM training. We also continue to run two

BASIC Courses a year at the RAH.

We have significantly strengthened the orientation program for registrars starting work in the ICU. It is now spread across 2 days and includes talks on acute pain management, common issues with the management of critically ill patients, and current research projects, as well as practical sessions on line insertion and BLS/ALS, and our 1-day Postoperative Care of the Cardiothoracic Patient Course.

Teaching is clearly a major focus of the Unit, with regular weekly sessions including Journal Club, Clinical Audit, Registrar Topic Presentations, Radiology, CICM Primary Teaching, CICM Fellowship Hot Case Teaching, CICM Fellowship Written Exam Practice, Simulation Scenarios, and BICMed. There is also a monthly Ultrasound and ECHO teaching session where interesting images are reviewed and discussed. So hopefully something for everyone!

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



## ICU Registrar Positions

If you are interested in a position as an Intensive Care Registrar at the RAH, you can contact Dr Alex Wurm at [alex.wurm@sa.gov.au](mailto:alex.wurm@sa.gov.au) or apply directly at <http://jobs.sahealthcareers.com.au/caw/en/job/617564/icu-medical-practitioner-calln-pool>.

If you are thinking about ICU as a career and would like to discuss your options, Dr Nick Edwards ([chopper45@iprimus.com.au](mailto:chopper45@iprimus.com.au)), Dr Jon Fraser ([jdfrazer62@gmail.com](mailto:jdfrazer62@gmail.com)) and Dr Peter Sharley ([peter.sharley@internode.on.net](mailto:peter.sharley@internode.on.net)) are the ICU (CICM) Supervisors of Training at the RAH - and are always happy to have a chat.

## Research Publications July 2016 - July 2017

1. Sundararajan K, Schoeman T, Hughes L, Edwards S, Reddi B. Predictors and outcomes of acute pancreatitis in critically ill patients presenting to the emergency department of a tertiary referral centre in Australia. *Emerg Med Australas*. 2017 Apr;29(2):184-191.
2. Alhazzani W, Guyatt G, Alshahrani M, Deane AM, Marshall JC, Hall R, Muscedere J, English SW, Lauzier F, Thabane L, Arabi YM, Karachi T, Rochwerf B, Finfer S, Daneman N, Alshamsi F, Zytaruk N, Heel-Ansdell D, Cook D; Canadian Critical Care Trials Group. Withholding Pantoprazole for Stress Ulcer Prophylaxis in Critically Ill Patients: A Pilot Randomized Clinical Trial and Meta-Analysis. *Crit Care Med*. 2017 Apr 27 [Epub ahead of print].
3. Gluck S, Summers MJ, Goddard TP, Andrawos A, Smith NC, Lange K, Iwashyna TJ, Deane AM. Wide Disagreement Between Alternative Assessments of Pre-Morbid Physical Activity: Subjective Patient and Surrogate Reports and Objective Smartphone Data. *Crit Care Med*. 2017 ePub; [in Press].
4. Chapple LS, Chapman MJ, Shalit N, Udy A, Deane AM, Williams LT. 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* 2017; [E-pub ahead of print].
5. Gluck S, Chapple L, Chapman M, Iwashyna T, Deane A. A scoping review to determine the use of wearable devices to evaluate outcomes in survivors of critical illness. *Crit Care Resusc* (accepted Mar 2017).
6. Miller A, Deane AM, Plummer MP, Cousins CE, Chapple LS, Horowitz M, Chapman MJ. Exogenous glucagon-like peptide-1 attenuates glucose absorption and reduces blood glucose concentration after small intestinal glucose delivery in critical illness. *Crit Care Resusc*. 2017 Mar;19(1):37-42.
7. Chapple LS, Deane AM, Williams LT, Strickland R, Schultz C, Lange K, Heyland DK, Chapman MJ. Longitudinal changes in anthropometrics and impact on self-reported physical function after traumatic brain injury. *Crit Care Resusc*. 2017 Mar;19(1):29-36.
8. Reddi BAJ, Shanmugam N, Fletcher N. Heart failure – pathophysiology and inpatient management. *BJA Educ* (2017) 17 (5): 151-160.
9. Nguyen TA, Abdelhamid YA, Phillips LK, Chapple LS, Horowitz M, Jones KL, Deane AM. Nutrient stimulation of mesenteric blood flow - implications for older critically ill patients. *World J Crit Care Med*. 2017 Feb 4;6(1):28-36. eCollection 2017 Feb 4.
10. Sundararajan K, Roberts-Thomson R.L, Nelson A.J, Psaltis P.J. Therapeutic Paradox : Nimodipine attenuates severe coronary spasm following coronary artery graft surgery in a high risk vasoplegic cancer patient. *Intern Med J*. 2017 Feb;47(2):229-231.
11. Peterson TMK, Ludbrook GL, Flabouris A, Seglenieks R, Painter T. Developing models to predict early postoperative patient deterioration and adverse events. *ANZ Journal of Surgery* Feb 2017.
12. Abraham J, Sinha R, Robinson K, Scotland V, Cardone D. Aetiology of preoperative anaemia in patients undergoing elective cardiac surgery – the challenge of pillar one of Patient Blood Management. *Anaesth Intensive Care* 2017 | 45:1.
13. Marty FM, Vidal-Puigserver J, Clark C, Gupta SK, Merino E, Garot D, Chapman MJ, Jacobs F, Rodriguez-Noriega E, Husa P, Shortino D, Watson HA, Yates PJ, Peppercorn AF. Intravenous zanamivir or oral oseltamivir for hospitalised patients with influenza: an international, randomised, double-blind, double-dummy, phase 3 trial. *Lancet Respir Med*. 2017 Feb;5(2):135-146.
14. Ou L, Chen J, Hillman K, Flabouris A, Parr M, Assareh H, Bellomo R. The impact of post-operative sepsis on mortality after hospital discharge among elective surgical patients: a population-based cohort study. *Crit Care*. 2017;21:34.
15. 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 Anaesthesiol Scand*. 2017 Feb;61(2):216-223. [Epub 2016 Dec 13].
16. Chapple LS, Deane AM, Heyland DK, Lange K, Kranz AJ, Williams LT, Chapman MJ. Energy and protein deficits throughout hospitalization in patients admitted with a traumatic brain injury. *Clin Nutr*. 2016 Dec; 35(6):1315-1322.
17. Plummer MP, Finnis ME, Phillips LK, Kar P, Bihari S, Biradar V, Moodie S, Horowitz M, Shaw JE, Deane AM. Stress Induced Hyperglycemia and the Subsequent Risk of Type 2 Diabetes in Survivors of Critical Illness. *PLoS One*. 2016 Nov 8;11(11).
18. Davies M, Chapple L, Chapman M, Moran J, Peake S. Protein delivery and clinical outcomes in the critically ill: A systematic review and meta-analysis. *Crit Care Resusc*. 2017 June.;19(2):117-127.
19. Chapple LS, Deane AM, Lange K, Kranz AJ, Williams LT, Chapman MJ. Weekend days are not required to accurately measure oral intake in hospitalised patients. *J Hum Nutr Diet*. 2017 Jun;30(3):378-384. [Epub 2016 Oct 6].
20. Ali Abdelhamid Y, Kar P, Finnis ME, Phillips LK, Plummer MP, Shaw JE, Horowitz M, Deane AM. Stress hyperglycaemia in critically ill patients and the subsequent risk of diabetes: a systematic review and meta-analysis. *Crit Care*. 2016 Sep 27;20(1):301.



21. Selvanderan SP, Summers MJ, Finnis ME, Plummer MP, Ali Abdelhamid Y, Anderson MB, Chapman MJ, Rayner CK, Deane AM. Pantoprazole or Placebo for Stress Ulcer Prophylaxis (POP-UP): Randomized Double-Blind Exploratory Study. *Crit Care Med*. 2016 Oct;44(10):1842-50.
22. Plummer MP, Finnis ME, Horsfall M, Ly M, Kar P, Abdelhamid YA, Deane AM. Prior exposure to hyperglycaemia attenuates the relationship between glycaemic variability during critical illness and mortality. *Crit Care Resusc*. 2016 Sep;18(3):189-97.
23. Chapman MJ, Deane AM, O'Connor SL, Nguyen NQ, Fraser RJ, Richards DB, Hacquoil KE, Vasist Johnson LS, Barton ME, Dukes GE. The effect of camicinal (GSK962040), a motilin agonist, on gastric emptying and glucose absorption in feed-intolerant critically ill patients: a randomized, blinded, placebo-controlled, clinical trial. *Crit Care*. 2016 Aug 1;20(1):232.
24. Kar P, Plummer MP, Bellomo R, Jenkins AJ, Januszewski AS, Chapman MJ, Jones KL, Horowitz M, Deane AM. Liberal Glycemic Control in Critically Ill Patients With Type 2 Diabetes: An Exploratory Study. *Crit Care Med*. 2016 Sep;44(9):1695-703.
25. Plummer MP, Kar P, Cousins CE, Hausken T, Lange K, Chapman MJ, Jones KL, Horowitz M, Deane AM. Critical Illness Is Associated With Impaired Gallbladder Emptying as Assessed by 3D Ultrasound. *Crit Care Med*. 2016 Sep;44(9):e790-6.
26. Ali Abdelhamid Y, Phillips L, Horowitz M, Deane AM. Survivors of intensive care with type 2 diabetes and the effect of shared care follow-up clinics: study protocol for the SWEET-AS randomised controlled feasibility study. *Pilot and Feasibility Studies* 2016; 2:62.
27. Di Muzio F, Presello B, Glassford NJ, Tsuji IY, Eastwood GM, Deane AM, Ekinici EI, Bellomo R, Mårtensson J. Liberal Versus Conventional Glucose Targets in Critically Ill Diabetic Patients: An Exploratory Safety Cohort Assessment. *Crit Care Med*. 2016 Sep;44(9):1683-91.
28. Iwashyna TJ, Deane AM. Individualizing Endpoints in Randomized Clinical Trials to Better Inform Individual Patient Care: the TARGET Proposal. *Crit Care*. 2016 Aug 3;20(1):218.
29. Luethi N, Cioccarl L, Tanaka A, Kar P, Giersch E, Deane AM, Mårtensson J, Bellomo R. Glycated Hemoglobin A1c Levels Are Not Affected by Critical Illness. *Crit Care Med*. 2016 Sep;44(9):1692-4.
30. Bennett VA, Strickland R, Finnis M, Biostat M, Reddi BAJ. Continuous Renal Replacement Therapy for Acute Kidney Injury Using Phosphate Containing Fluid is Associated With Greater Biochemical Derangement than Conventional Fluid. *Nephrology* Jul 2016; 2(1):17-22.
31. Maiden MJ, Chapman MJ, Torpy DJ, Kuchel TR, Clarke IJ, Nash CH, Fraser JD, Ludbrook GL. Triiodothyronine Administration in a Model of Septic Shock: A Randomized Blinded Placebo-Controlled Trial. *Crit Care Med*. 2016 Jun;44(6):1153-60.
32. Maiden MJ, Chapman MJ, Torpy DJ, Kuchel TR, Clarke IJ, Nash CH, Ludbrook GL. Tri-iodothyronine (T3) replacement with and without hydrocortisone in a model of septic shock. A randomised, blinded, placebo-controlled trial. *Crit Care Med*. 2016 Jun;44(6):1153-60.
33. Pryor L, Ward E, Cornwell P, O'Connor S, Chapman MJ. Establishing phonation using the Blom® Tracheostomy Tube System: A report of three cases post cervical spinal cord injury. *Speech, Language and Hearing*. (Accepted for publication May 2016).
35. Horowitz M, Wu T, Deane AM, Jones KJ, Rayner CK. DPP-4 inhibition and the known unknown. *Diabetes*. 2016 Aug;65(8):2124-6.
36. Liew VY, Chapman MJ, Nguyen NQ, Cousins CE, Plummer MP, Chapple LA, Abdelhamid YA, Manton ND, Swalling A, Sutton-Smith P, Burt AD, Deane AM. A prospective observational study of the effect of critical illness on ultrastructural and microscopic morphology of duodenal mucosa. *Crit Care Resusc*. 2016 Jun;18(2):102-8.
37. Pryor L, Ward E, Cornwell P, O'Connor S, Chapman M. Clinical indicators associated with successful tracheostomy cuff deflation Australian Critical Care. *Aust Crit Care*. 2016 Aug;29(3):132-7.
38. O'Connell A, Flabouris A, Kim SW, Horwood C, Hakendorf P, Thompson CH. A newly-designed observation and response chart's effect upon adverse inpatient outcomes and rapid response team activity. *Intern Med J*. 2016 Jun 1.
39. Chen J, Ou L, Flabouris A, Hillman K, Bellomo R, Parr M. Impact of a Standardized Rapid Response System on Outcomes in a Large Healthcare Jurisdiction. *Resuscitation*. 2016;107:47-56 PMID: 27507434.
40. Assareh H, Chen J, Ou L, Hillman K, Flabouris A. Incidences and variations of hospital acquired venous thromboembolism in Australian hospitals: A population-based study. *BMC Health Services Research* Sept 2016.
41. Sundararajan K, Flabouris A, Thompson C, Seppelt I, George Institute of Global Health and the Australian and New Zealand Intensive Care Society Clinical Trials Group Point Prevalence study Investigators. Elderly patients are at high risk of night-time admission to the intensive care unit following a rapid response team call. *Internal Medicine Journal* 2016; 46:1440-1442.
42. Ou L, Chen J, Hillman K, Flabouris A. Hospital Variations in postoperative sepsis and related outcomes after coronary artery bypass grafting surgery. *International Journal for quality in Health Care*. 2016;28:7-8.
43. Ou L, Chen J, Hillman K, Flabouris A, Parr M, Assareh H, Bellomo R. Post-hospital discharge mortality among elective surgical patients with and without postoperative sepsis. *Crit Care*. 2017;21:34.
44. Sundararajan K, Li CK. Mind the Drain: Inadvertent Colonic Puncture after Mediastinal Drain Insertion in a High-risk Cardiac Surgical Patient. *International Journal of Medical and Pharmaceutical Case Reports* 2016;6(4):1-4.28.

45. 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.
46. Ali Abdelhamid Y, Plummer M, Finnis M, Biradar V, Bihari S, Kar P, Moodie S, Horowitz M, Shaw J, Phillips L, Deane A. Long-term mortality of critically ill patients with diabetes who survive admission to Intensive Care. *Critical Care & Resuscitation* 2017: in press.
47. Kar P, Jones KL, Plummer MP, Ali Abdelhamid Y, Giersch EJ, Summers MJ, Hatzinikolas S, Heller S, Horowitz M, Deane AM. Antecedent hypoglycaemia does not attenuate the acceleration of gastric emptying by hypoglycaemia. *J Clin Endocrinol Metab* 2017 Jul; in press.
48. Martensson J, Bailey M, Venkatesh B, Pilcher D, Deane A, Ali Abdelhamid Y, Crisman M, Verma B, MacIsaac C, Wigmore G, Shehabi Y, Suzuki T, French C, Orford N, Kakho N, Prins J, Ekinici E, Bellomo R. Intensity of early correction of hyperglycaemia and outcome of critically ill patients with diabetic ketoacidosis. *Critical Care & Resuscitation* 2017: in press.
49. Buckingham T, Roberts A, St John A, O'Callaghan G. Bursting pressure of triple-lumen central venous catheters under static and dynamic loads. *J Vasc Access* 2017: in press.

### **Book Chapters 2016 / 2017**

1. Maiden MJ, Chapman MJ. Multi-Organ Dysfunction Syndrome. 2017. *Oh's Intensive Care Manual*. Bersten AD, Soni N (Ed). Butterworth Heinemann. 8<sup>th</sup> edition. (In Press)
2. Maiden MJ, Peake S. Overview of shock. 2017. *Oh's Intensive Care Manual*. Bersten AD, Soni N (Ed). Butterworth Heinemann. 8<sup>th</sup> edition. (In Press)
3. Maiden MJ, Bellomo R. Models of Acute Kidney Injury in Critical Illness. *Critical Care Nephrology*, 3<sup>rd</sup> Edition, 2017 (In Press)
4. Maiden MJ, Bellomo R. Renal Replacement Therapy for Septic Acute Kidney Injury. *Critical Care Nephrology*, 3<sup>rd</sup> Edition, 2017 (In Press)
5. Peake S, Maiden MJ. Management of septic shock in the critically ill. *Oxford Textbook of Critical Care*, 2<sup>nd</sup> Edition, 2016; pp. 1420-1425.
6. Plummer MP, Reintam-Blaser A, Deane AM. Enterohormones and the response to critical illness. The stress response of critical illness: metabolic and hormonal aspects. Editor: JC Preiser.

### **Invited Reviews**

1. Ali Abdelhamid Y, Chapman M.J., Deane A.M. Perioperative Nutrition. *Anaesthesia*. 2016: 71 (S1), 9-18.
2. Arabi Y, Casaer MP, Chapman MJ, Heyland D, Ichai C, Marik PE, Martindale RG, McClave SA, Preiser J-C, Reigner 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. *Int Care Medicine* 2016.

### **A selection of presentations at scientific meetings**

1. Chapman M. Collaborative Clinical Trials in Intensive Care Medicine Conference, Jun 2017 (Prato, Italy). Accepted Invitation: TARGET Trial
2. Chapman M. SG - Australian and New Zealand Intensive Care Society, ASM Apr 2017 (Singapore). Accepted Invitation: Faculty
3. Ali Abdelhamid Y. SG - Australian and New Zealand Intensive Care Society, ASM Apr 2017 (Singapore). Accepted Invitation: ICU follow-up clinics: patient-centred or physician-centred?
4. Ali Abdelhamid Y. College of Intensive Care Medicine Annual Scientific Meeting, Apr 2017 (Sydney, Australia). Accepted Invitation: When the famine ends: perspectives on refeeding syndrome.
5. Ali Abdelhamid Y. College of Intensive Care Medicine Annual Trainee Symposium, Apr 2017 (Sydney, Australia). Accepted Invitation: Prescribing TPN.
6. Chapple L. Australian and New Zealand Society of Intensive Care, Clinical Trials Group conference, Mar 2017 (Noosa, Queensland). Accepted Invitation: Early Energy Delivery on Long-Term Survival and Functional Outcomes Following Critical Illness: A Randomised Controlled Clinical Trial.
7. O'Callaghan G. SA Academic Health Science and Translation Centre and Health Performance Council, Mar 2017 (Adelaide, Australia) Data Access Workshop: Data Access as a priority enabler for system change.

8. Chapple L. Clinical Nutrition Week, American Society of Parenteral and Enteral Nutrition, Feb 2017 (Florida, USA). Accepted Invitation: Mortality - Are we using the wrong endpoint?
9. Chapman M. Australian and New Zealand Intensive Care Society – ASM, Oct 2016 (Perth, Australia) Accepted Invitation: Feeding Targets.
10. Plummer MP, Finnis ME, Phillips LK, Kar P, Horowitz M, Shaw JE, Deane AM. East Anglia Association of Anaesthetists, 2016 (United Kingdom). The risk of type 2 diabetes in survivors of critical illness with stress induced hyperglycaemia.
11. Anstey M, Nguyen N, O'Callaghan G. Australian and New Zealand Intensive Care Society – ASM, Oct 2016 (Perth, Australia) Future Directions Sessions: Choosing Wisely in Critical Care Medicine.
12. O'Callaghan G. Australian and New Zealand Intensive Care Society – ASM, Oct 2016 (Perth, Australia) Application of Operations Research Methods reveals the dependent relationship between admission and discharges to Intensive Care.
13. Deane A. ESICM Lives 29<sup>th</sup> European Society of Intensive Care Medicine Annual Congress, 2016 (Milan, Italy). Accepted Invitation: Acid suppression and the risk of nosocomial infections.
14. Plummer MP, Finnis ME, Phillips LK, Kar P, Bihari S, Biradar V, Moodie S, Horowitz M, Shaw JE, Deane AM. European Intensive Care Society Meeting, 2016 (Milan, Italy). Stress induced hyperglycaemia and the subsequent risk of type 2 diabetes in survivors of critical illness.
15. Ali Abdelhamid Y. College of Intensive Care Medicine Annual Scientific Meeting, Jun 2016 (Adelaide, Australia) Accepted Invitation: Life after Fellowship.
16. Deane A. College of Intensive Care Medicine Annual Scientific Meeting, Jun 2016 (Adelaide, Australia). Invited Lecture: Life after Fellowship – a higher degree.
17. Sundararajan K, Flabouris A, Thompson C. Florey Postgraduate Conference, Sep 2016 (Adelaide, Australia). Circadian rhythm and diurnal variation: Hospital at night study.
18. Deane A. Australian New Zealand College of Anaesthesia (ANZCA) Annual Scientific Meeting, 2016 (Auckland, New Zealand) Invited Lecture: Blood glucose control on the ICU.
19. O'Callaghan PG, MacKay M, Varney J, Bean N. American Thoracic Society Annual Scientific Meeting, 2016 (San Francisco, USA). Does the application of operation research methods to intensive care patient flow data provide solutions to capacity constraints.
20. Chapple L. Advanced Clinical Nutrition course, Australasian Society of Parenteral and Enteral Nutrition (AuSPEN), Jun 2016 (Sydney, Australia). Accepted invitation and problem-based learning tutor: Research in the nutrition support setting.
21. Chapman M. Baxter Nutrition Symposium “The Difficult to Nourish ICU Patient”, May 2016 (Sydney, Australia). Accepted Invitation: How much nutrition should we deliver?
22. Ali Abdelhamid Y. Royal Australasian College of Physician Congress, May 2016 (Adelaide, Australia). Accepted Invitation: Long-term outcomes in survivors of sepsis.
23. Chapman M. South Australian Intensive Care -Trainee Lecture Series, May 2016 (Adelaide, Australia) Accepted Invitation: Nutrition in ICU.
24. Maiden M. Australian and New Zealand Society of Intensive Care, Clinical Trials Group conference, Mar 2016 (Noosa, Queensland). Preclinical research – what forum?
25. Kar P. College of Intensive Care Medicine – ASM, May 2017 (Sydney, Australia). Can't keep it down - approach to the high gastric aspirate.

### **Attainment of PhD 2016/2017**

Lee-anne Chapple – ‘Nutrition in survivors of critical illness: An exploration of energy and protein provision and nutrition support practices on muscle mass, nutritional status and clinical outcomes after critical illness, with a focus on traumatic brain injury’, University of Adelaide

Lee Pryor - ‘Critical care intervention in speech pathology practice: Implications for communication, swallowing and tracheostomy management’, University of Queensland

### **PhD Students**

- 2015 - Palash Kar (University of Adelaide)
- 2016 - Yasmine Ali Abdelhamid (University of Adelaide)
- 2017 - Dr Samuel Gluck (University of Adelaide)

## Research Grants

- 2017: Kar P, Deane AM, Horowitz M, Finfer S, Bellomo R, Heller S, Maiden M, Poole A. Royal Adelaide Hospital Research Fund.  
Project Title: Liberal gLUcose Control in critically ill patient with pre-existing type 2 Diabetes (LUCID): a phase II multicentre randomised controlled trial.  
Value: \$49,950
- 2016: Deane AM. Royal Adelaide Hospital NHMRC 'Near Miss' Grant.  
Project Title: Glucose metabolism in survivors of ICU.  
Value: \$50,000
- 2016: Phillips LK, Horowitz M, Shaw JE, Deane AM and Plummer MP. Diabetes Australia Research Trust General Project Grant.  
Project Title: Glycaemia in the critically ill – dysglycaemia as a predictor for incident type 2 diabetes and the effect of pre-existing type 2 diabetes on outcomes in survivors of critical illness.  
Value: \$59,915
- 2016: Maiden MJ. Australasian College for Emergency Medicine. Early Career Researcher Grant.  
Project Title: Changes to red cell in septic shock.  
Value: \$20,000
- 2016: Deane AM, Cook DJ, Finfer S, Guyatt G, Poole A and Alhazzani W. Royal Adelaide Hospital Research Fund.  
Project Title: REVISE: Re-evaluating the inhibition of stress erosions: gastrointestinal bleeding prophylaxis in ICU.  
Value: \$48,696
- 2016: Chapple L, Chapman MJ and Deane AM. Royal Adelaide Hospital Research Fund.  
Project Title: Quantification of muscle size and function in response to a randomised nutritional intervention in critically ill patients.  
Value: \$46,197
- 2016: Chapman MJ, Deane AM, Soenen S, Van Loon L and Chapple L. Royal Adelaide Hospital Research Fund.  
Project Title: The effect of protein hydrolysis on the rate and extent of protein absorption and muscle uptake in critically ill patients.  
Value: \$49,560
- 2016: Gluck S, Deane AM, Choo R and Iwashyna TJ. Royal Adelaide Hospital Research Fund.  
Project Title: The feasibility and validity of obtaining pre-illness activity data in critically ill patients using 'smart-phone' technology: a validation study.  
Value: \$49,990
- 2016: Ali Abdelhamid Y, Phillips LK, Horowitz M and Deane AM. Intensive Care Foundation.  
Project Title: Survivors of ICU with type 2 diabetes and the effects of shared care follow up clinics: The SWEET-AS feasibility study.  
Value: \$35,000
- 2016: Ali Abdelhamid Y, Jones K, Horowitz M, Kar P, Phillips L, Nguyen T and Deane AM. Royal Adelaide Hospital Research Committee Clinical Project Grant.  
Project Title: Prevalence, mechanisms and impact of postprandial hypotension in elderly survivors of critical illness.  
Value: \$49,207
- 2015-19: Chapman MJ, Peake S, Bellomo R, Horowitz M, Davies AR and Deane AM. NHMRC Project Grant.  
Project Title: The Augmented versus Routine approach to Giving Energy Trial. (TARGET).  
Value: \$3,534,236
- 2016: Deane AM, Cook DJ, Finfer S, Guyaty G, Poole A and Alhazzani W. Royal Adelaide Research Fund.  
Project Title: REVISE: Re-Evaluating the Inhibition of Stress Erosions: Gastrointestinal Bleeding Prophylaxis In ICU.  
Value: \$48,696
- 2016: Flabouris A. Royal Adelaide Hospital Research Fund.  
Project Title: Standardised patient observation charts, triggered clinical reviews and the prevention of serious patient adverse events.  
Value: \$19,250



- 2016: 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
- 2016: Chapple L, Summers M, Deane A, Chapman M. 2016. Australasian Society of Parenteral and Enteral Nutrition (AuSPEN).  
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

### **Current Research Funding Scholarships**

- 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
- 2014 - 2017: NHMRC Early Career Fellowship  
Investigator: Dean AM. Value: \$255,217

### **Other Awards**

1. Chapple L. American Society of Parenteral and Enteral Nutrition (ASPEN) 2017 Research Section New Practitioner Award: Recognition of achievements in furthering the science and practice of nutrition support.
2. Chapple L. Australian and New Zealand Intensive Care Society Annual Scientific Meeting, Perth 2016: Best Allied Health Paper. \$2,500.
3. Summers MJ, Chapple LS, McClave SA, Deane AM. Awarded to the top four ranked abstracts submitted to ASPEN Clinical Nutrition Week 2016, Austin, Texas.
4. Reid D, Chapple L, et al. Awarded to the 5<sup>th</sup> best International abstract submitted to ASPEN Clinical Nutrition Week 2016, Austin, Texas.
5. Plummer MP. Harold Youngman Medal. Highest ranked research at the East Anglia Association of Anaesthetists ASM.
6. Nguyen T. RAH Research Committee Honours Award 2016. \$2,000.
7. Chapple L. Dietitians Association of Australia ICD LEAP 2016 Travel Award. \$1,000.
8. Plummer MP. Dean's Commendation for Doctoral Thesis Excellence - University of Adelaide.
9. Chapple L. University of Adelaide, School of Medicine Research Travel Award 2016: Round 1. \$3,000.
10. Chapple L. Dietitians Association of Australia Young Achievers Award 2016: Honourable Mention.
11. Chapple L. Australasian Society of Parenteral and Enteral Nutrition (AuSPEN) 2016 Conference Travel Grant, Melbourne, 2016. \$500.



## **ICU Registrar Involvement in Research**

Registrars, and ICU 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 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.

We have had a number of winners of the Matt Spence Medal for the best registrar research presentation at the ANZICS Annual Scientific Meeting - including 3 of the past 4 years.



## ICU Registrar Travel Stories

### Guido

Before moving to Australia with my family, I spent about 20 years of my life in Amsterdam, The Netherlands. I was trained as an anaesthetist and intensivist over there. With my wife and 2 daughters of then 3 and 0, we decided to take on the adventure and move to Australia. Initially to the Sunshine Coast, Queensland, where I worked a year as an aeromedical retrieval registrar. Lots of fun. The Sunshine Coast is renowned for its beautiful beaches and I had some spectacular helicopter landings on the beach, the best one on a remote part of Fraser Island landing on the softest whitest sand on a background of a clear blue sea and sky. The hinterland has a lot to offer there as well, with the Great Dividing Range with rainforests offering good walks with perfect views.

Thereafter, I enrolled in the CICM training program as an advanced trainee and I made the move to the Royal Adelaide Hospital. A large training hospital with lots of opportunities to learn and develop your skills. Very interesting to see some of the differences in culture and approach as compared to working in ICU in the Netherlands.

Last year we made quite a few trips in Australia and abroad, this year the birth of our baby boy kept us a bit closer to Adelaide.

Within easy reach from Adelaide are international holiday destinations such as Fiji, New Caledonia, Vanuatu (tick), Bali (tick), the rest of Asia and New Zealand (tick).

Closer to Adelaide it is heaven for wine-lovers: Barossa (about 80 wineries), McLaren vale (about 80 wineries), Adelaide Hills (about 40 wineries), Clare valley (about 30 wineries) with lots of cellar doors. Kangaroo Island was a highlight for us, one-and-a-half hours from Adelaide, but it feels like a totally different world, must-do.

This year we have booked our holiday to Langkawi, Malaysia, and during Summer we will drive the great ocean road. The rest of the to-do list is: Uluru, Flinders Ranges, Darwin.

To finish off, my top 3 Australian destinations:

- 1) Tasmania (although a bit chilly, even in Summer)
- 2) Sunshine Coast, QLD (combination of beautiful beaches and eerie rainforest hinterland)
- 3) Around Mackay: Whitsundays and Eungella national park.



Mount Coolum, Sunshine Coast, Queensland

### James

G'day and welcome to Adelaide! I am a Londoner originally and was in training in the UK to be an anaesthetist. However, one grey and frosty day, I was sold the Australian dream of beaches, barbecues and babes...and decided to move out as quickly as I could, well at least as quickly as AHPRA would allow. I've not been disappointed, it's an awesome place and I've found at least two of those three selling factors to be true!

So, why is it so awesome? To start with Adelaide is a relaxed friendly city with a vibrant cafe and bar scene, so there's always plenty to do with your many days off. With only a 38 hour working week, you will often have four or five days of time rostered off with which to explore the local area, even before your holiday is taken into account. If wine is your thing there are many wonderful vineyards in the hills nearby, that are often accompanied by fine restaurants. In the Summer, things get lively in the city with culture a plenty from the Adelaide festival, the fringe and Womad to keep you occupied, and if you're more sporty by nature Melbourne's a short hop away for tennis and Formula 1.

On the work perspective, you'll enjoy working with a large and friendly group of fellow registrars, a relaxed and approachable bunch of consultants with many teaching activities scheduled during the week from journal club, to radiology meetings through to ICU fellowship specific training. Not to mention the fact that you'll be working in a brand new state-of-the-art hospital that is the third most expensive building in the world!

For me, by far the best aspect of Australia, is the outdoor life. I enjoy climbing and mountain biking and have found some world-class areas for both within a few hours drive of the city, be it the moon-like desolation of the Flinders ranges to the North or the much greener Grampians to the South. There's still so much to explore that I've decided to stay on for another year with trips to the Blue Mountains & Tasmania to come, not to mention some skiing in Victoria!

If I go missing, three places to start looking would be Andre's Cucina, the Bank Street Social or Mount Arapiles. I look forward to meeting you, whoever you are...



### Lucy

I arrived from the UK 2 years ago after completing my core anaesthetic training. I wanted to broaden my clinical experience whilst having the chance to experience somewhere new. I've had plenty of opportunity to explore South Australia and further afield. Some of my favourite things have been:

- **Wildlife:** There are great wildlife spotting opportunities around Adelaide. Chambers Gully is great for koalas and we've even managed to see an echidna in Belair. You can go shark cage diving in Port Lincoln, swim with dolphins in Glenelg or go whale watching in Victor Harbour (no guarantee of whales though - we spent a wet and windy August day looking for whales and didn't see so much as a blow hole).
- **Roadtrips:** We've loved packing up the esky and the swag in the car and taking off for a few days. The great ocean road was a real highlight but we've also really enjoyed trips to the Grampians, Kangaroo Island, The Coorong and around South Australia's many wine regions of course!
- **Sport:** You can't live in Australia without getting caught up in all the sport going on. The Adelaide Oval is home to the Adelaide Crows - currently top of the AFL ladder! (Oh, and Port do play there too) It's great fun to go and watch a match. In the Summer months there is cricket, and the Australian Open is a short flight away. Cycling is huge in Adelaide and the Tour Down Under comes here every year. For the keen cyclist, Mount Lofty, Norton Summit and the infamous Willunga Hill offer a good challenge. For the more relaxed cyclist, a jaunt around the wineries of McLaren Vale is delightful.



2017 Australian Tennis Open

## 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 a range of travel scholarships (up to \$10,000) 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 an intubation mannikin (including nasal fiberoptic capability)
- purchase of AMBU bronchoscopy monitor and disposable scopes for training
- purchase of an ALS resuscitation model for the QEH ICU
- purchase of hearts models for Ultrasound Course
- purchase of rapid infusion catheter (RIC) insertion models, Survey Monkey subscription

- travel grant for Dr S Gluck to present his research at State of the Art Conference, London 2016
- purchase of a laptop for courses / presentations
- sponsorship of Trainee Lecture Series day at Ayers House
- funding for Departmental Subscription to Crit-IQ for ICU Consultants and Registrars
- covering the cost of this Newsletter

Application forms for travel scholarships can be obtained by contacting;

Nick Edwards  
C/- ICU, Royal Adelaide Hospital  
Email: [chopper45@iprimus.com.au](mailto:chopper45@iprimus.com.au)



## New Royal Adelaide Hospital (nRAH)

The nRAH is finally opening in September and is the 3rd most expensive building in the world! The state-of-the-art ICU will open with 48 beds (4 pods of 12), but is expandable in the future to 72 beds. The new site is still on North Terrace, and so remains in the heart of the city, and is co-located with the new South Australian Health and Medical Research Institute. Exciting times!



## Adam Deane

Adam moved from Melbourne to Adelaide in 2007 to pursue a PhD through the University of Adelaide/Royal Adelaide Hospital. In 2008, he accepted an ICU Consultant position with us, hiding the fact that he is a Collingwood supporter until after his appointment.

Working closely with Marianne Chapman, our Director of Research, and the rest of the research team, he contributed enormously to our research program. The support and encouragement that he provided to PhD and Masters students and to trainees with their various projects was very much appreciated by all. Unfortunately for us, he moved back to Victoria at the end of 2016 to take up the position of Head of Research in the Intensive Care Unit at the Royal Melbourne Hospital. We wish him well and hope that we will continue to collaborate with him and his new research team in the future.



## Upcoming Intensive Care Courses 2016 / 2017

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

14-16 February 2018.

30 candidates. For ICU Registrars within 12 months of 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 open 5 September 2017.

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**

19-23 March 2018. And July 2018 (date 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**

14-15 September 2017. And February 2018 (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 INTENSIVE CARE MEDICINE (BICMED) COURSE**

An introductory course for junior and general trainees rostered to the RAH ICU for 3-6 month rotations.

Runs over a 12 week cycle, repeating 2 times a year, with the intention of giving all trainees rostered to the unit the opportunity to attend. The course is run on Friday afternoons from 1500-1700hrs, with most sessions having a significant 'hands-on' component. Accredited towards CICM training.

Course program available at [http://www.icuadelaide.com.au/course\\_bicmed.html](http://www.icuadelaide.com.au/course_bicmed.html).

Coordinated by Dr Alex Wurm, C/- ICU, Royal Adelaide Hospital.

Email: [alex.wurm@sa.gov.au](mailto:alex.wurm@sa.gov.au)

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

27-28 November 2017. And February 2018 (date to be confirmed).

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

Enquiries to Dr Mike Anderson, C/- ICU, Royal Adelaide Hospital.

Email: [Michael.Anderson2@sa.gov.au](mailto:Michael.Anderson2@sa.gov.au)

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

10 August 2017 and 6 February 2018.

A 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)



### 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)).