Training and Research
July 2015 - June 2016

This was another successful and productive year for our staff in the Royal Adelaide ICU.

In addition to our clinical work, we have continued to run highly successful teaching and research programs, and in this Newsletter we highlight some of these 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), paediatric (PICU) rotations, and the move to the new Royal Adelaide Hospital.

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 2015 to June 2016, we admitted 3644 patients into the 42 beds (2464 ICU, 1180 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 (51% non-elective surgery), 31% were admitted directly from the Emergency Department, 15% from the wards, and 5% were transferred directly from another hospital to our ICU.

The Unit currently has 38.5 Registrars on the roster (22 registered with the College of Intensive Care Medicine) from a variety of backgrounds and training programs, and with very different levels of experience and long-term goals.
Congratulations to Hao Wong who passed the CICM Fellowship Exam in May. After another 6 months with us as Chief Registrar, he plans to do a Fellow year in Singapore next year.

Palash Kar won the Matt Spence Medal in Auckland last year at the Australian and New Zealand Intensive Care Society ASM for his paper, ‘Personalised Glycaemic Control in Critically Ill Type-2 Diabetic Patients: An Exploratory Study.’ This is awarded for the best registrar research presentation, and it is the 3rd year in a row that it has been won by a registrar at the RAH!

Mark Plummer was awarded his PhD for his project titled, ‘Upper gastrointestinal function and glycaemia in health and critical illness’, and received a Dean’s Commendation. He is now spending 12 months as a Clinical Fellow in the Neurosciences and Trauma Critical Care Unit at Addenbrooke’s Hospital in Cambridge before returning to the RAH in 2017.

The Tub Worthley Travelling Scholarship was won by Tim Beckingham (Lyell McEwin Hospital) in May this year. 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, Michael Davies, Matt Jarvis and Palash Kar (ineligible as he won last year).

Special guests this year included a half-day research seminar with Prof Steve McClave (Louisville, US) on gastrointestinal function and nutrition during critical illness at which several of our researchers presented. Prof Jeremy Kahn (Pittsburgh, US) visited in June this year, and was involved in a Health Services Research Workshop at the RAH, before presenting on ‘The Hospital at Night’. He was also given the full Adelaide experience - an AFL game at Adelaide Oval, a Balfours pie, and a Coopers Pale Ale (photo below). We also welcomed Dr Andrew Shorr (Washington, US) in May who presented on strategic options for management of difficult to treat gram negative infections.

The 31th 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 below). An enormous amount of work goes into the Course, with over 30 faculty this year, including 12 from the RAH and 5 from interstate. Hot Case practice sessions were held at the RAH, QEH, FMC and LMHS.

The annual South Australian Primary Examination Course was held at Ayers House in July in 2016, and was coordinated as usual by Mark Finnis. There were 24 candidates and a number of the RAH Intensivists were involved in the teaching. The course is invariably oversubscribed, and so by popular demand has been increased to twice a year from 2017.

The fourth South Australian Critical Care Ultrasound Course was held 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.

Two further Trainee Lecture Series days were held at Ayers House in this 12 months, with speakers including Prof Simon Finfer (Royal North Shore, Sydney), Ubbo Wiersema (FMC), Andrew Holt (FMC), Toby Thomas (LMHS), John Raj (QEH), and the Royal Adelaide’s Simon McRae, Mark Finnis and Marianne Chapman. Each was attended by more than 30 registrars from across the State. Hao Wong, one of our Senior Registrars, has chaired the first 3 events, and will now hand over the reigns to another of our registrars, Michael Davies. We will continue to hold these days at least twice a year.

The RAH BICMed Course is now 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, with the next to be held in November 2016.

We have expanded the 6-monthly orientation program for registrars new to the Unit, including a half-day Mini-BICMed Course and a half-day Postoperative Care of the Cardiothoracic Patient Course.

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


A selection of presentations at scientific meetings

1. Deane A. ESICM Lives 29th European Society of Intensive Care Medicine Annual Congress 2016 (Milan, Italy) - Accepted Invitation: Acid suppression and the risk of nosocomial infections.

2. Deane A. Chinese Critical Care Congress 2015 (annual meeting of the Chinese Society of Critical Care Medicine and Chinese Association of Critical Care Physicians held in Fuzhou, China) – Accepted invitation: Ideal glucose targets in the critically ill with pre-existing diabetes.

3. Deane A. Chinese Critical Care Congress 2015 (Fuzhou, China) – Accepted invitation: Optimal energy delivery in the critically ill.

4. Deane A. Chinese Critical Care Congress 2015 (Fuzhou, China) – Accepted invitation: Acid-suppressive drugs should not be routinely prescribed.


7. Deane A. Clinical Nutrition Week 2015 (annual meeting of the American Society for Parenteral and Enteral Nutrition held in California, USA) – Accepted invitation: Late-Breaking Topics in Clinical Nutrition: Calorie targets in the critically ill.

8. Deane A. Clinical Nutrition Week 2015 (California, USA) – Accepted invitation: The use of drugs to stimulate the gut.

9. Deane A. College of Intensive Care Medicine Annual Scientific Meeting 2016 (Adelaide, Australia) - Accepted Lecture: Life after Fellowship - a higher degree.

10. Deane A. Australian New Zealand College of Anaesthesia (ANZCA) Annual Scientific Meeting 2016 (Auckland, New Zealand) – Invited Lecture: Blood glucose control on the ICU.

11. O’Callaghan PC, 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


18. Chapman, MJ. Baxter Nutrition Symposium. The Difficult to Nourish ICU Patient 2016 (Sydney, Australia). How much nutrition should we deliver?

Abstracts/Posters at scientific meetings


21. Sundararajan K, Micik S. It’s all in the mind- Observational study to evaluate the impact of ICU diaries on PTSD in close relatives of ICU patients. Storytelling, Illness and Medicine, 11th Global Meeting of the Health project held in Budapest, Hungary March 2016.


26. Richmond KMI, Warburton KG1, Finney SJ1, Shah S1, Reddi BAJ1,2 Routine CT scanning of patients retrieved to a tertiary referral centre on VV ECMO: a risk benefit analysis. European ELSO conference 2016. Winner of Best Abstract.


**Attainment of PhD 2015/2016**

Mark Plummer - ‘Upper gastrointestinal function and glycaemia in health and critical illness’

**PhD Students**

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<th>Year</th>
<th>Name</th>
<th>University</th>
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<tbody>
<tr>
<td>2016-</td>
<td>Dr Yasmine Ali Abdelhamid (University of Adelaide)</td>
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<tr>
<td>2014-2016</td>
<td>Dr Palash Kar (University of Adelaide)</td>
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<tr>
<td>2011-2016</td>
<td>Ms Lee Pryor (University of Queensland)</td>
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<tr>
<td>2014-2016</td>
<td>Ms Lee-anne Costello (University of Adelaide)</td>
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**Masters Students**

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<tr>
<th>Year</th>
<th>Name</th>
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<tbody>
<tr>
<td>2016-</td>
<td>Dr Andrew Boyle</td>
<td></td>
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<tr>
<td>2015-</td>
<td>Ms Sarah Doherty</td>
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**Honours Students**

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<th>Year</th>
<th>Name</th>
<th>Description</th>
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<tr>
<td>2016-</td>
<td>Ms Thu Nguyen - 'An exploratory study to estimate the prevalence, mechanisms underlying and impact of postprandial hypotension in survivors of critical illness aged greater than 65 years'</td>
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Research Grants


2016: Deane AM. Royal Adelaide Hospital NHMRC ‘Near Miss’ Grant. Project title: Glucose metabolism in survivors of ICU. Value: $50,000


2015: Plummer MP, Deane AM, Finnis ME, Shaw JE, Moodie S and Biradar V. The Maurice Sando Chair of Anaesthesia and Intensive Care Foundation Sponsorship Scheme Project Grant. Project title: A state-wide study to determine whether hyperglycaemia during critical illness identifies survivors at risk of subsequently developing diabetes. Value: $10,000


Current Research Funding Scholarships

2014-16: Royal Adelaide Hospital AR Clarkson Scholarship Investigator: Kar P. Value: $300,000

2016-18: Royal Adelaide Hospital AR Clarkson Scholarship Investigator: Ali Abdelhamid Y. Value: $300,000

2014-17: NHMRC Early Career Fellowship Title: The effects of acute and chronic hyperglycaemia on short and long-term outcomes in the critically ill. Investigator: Deane AM. Value: $255,217

2015: Royal Adelaide Hospital Research Committee AR Clarkson Scholarship Investigator: Deane AM.
Other Awards

Deane A. University of Adelaide Faculty of Health Sciences Executive Dean’s Award 2015. Awarded to the early career researcher in the Faculty of Health Science who has had the most substantial research impact.

Selvanderan SP, Deane A. Best Medical Paper, Australia and New Zealand Intensive Care Society Annual Scientific Meeting 2015 (Auckland, New Zealand).


Nguyen T. RAH Research Committee Honours Award 2016 ($2,000).

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 the last 3 years in a row!

Paediatric Rotation

The requirements for successful completion of the College of Intensive Care (CICM) training program changed for trainees joining after January 2014 – the details of which can be found on the CICM website. One of these changes is a requirement to gain some exposure to Paediatrics.

We have previously helped facilitate 6-month terms for our trainees in the Paediatric Intensive Care Unit at the Women and Children’s Hospital, and have recently formalised this link. The feedback from previous trainees has been very positive, and we strongly recommend it during the latter years of training. We also assist our trainees with the organisation of their medical and anaesthetic terms, and now with rural placements.

New Royal Adelaide Hospital

Unfortunately, construction of the new RAH has taken longer than expected, with the move to the new site delayed until April/May 2017. The new site is still on North Terrace, and so remains in the heart of the city. Costing over A$2.2 billion, the hospital will have 700 inpatient areas, consisting of 600 high acuity and acute recovery beds, and will be co-located with the new South Australian Health and Medical Research Institute.

The ICU will remain a mixed, general ICU and will open with 48 beds (4 pods of 12), with the capacity to expand to 60 (and even 72) in the future. Further information can be found at http://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/health+reform/the+new+royal+adelaide+hospital.
ICU Registrar Travel Stories

Natalie

I grew up just south of Oxford in the UK and trained in anaesthesia in the South of England before deciding to experience antipodean life and the Australian approach to ICU. I arrived in Adelaide with my boyfriend Ben on a dark winter night with 75kg of luggage but somehow no coats, jumpers or shoes other than flip-flops (aka thongs) and realised it really does get cold in Australia! Once the shock of an Adelaide winter had passed (helped by an obligatory new winter wardrobe!) I started work in the RAH ICU and I have remained here for the past couple of years. I have had an excellent experience in the unit and enjoy working with such a friendly and global team. So much so that we have decided to stay in Australia – Ben and I now have our permanent residency, are in our respective training programmes and are embarking on various research projects.

Outside of work we have made the most of the flexible roster to explore. Around Adelaide we have thoroughly enjoyed pottering around the wine regions, SUP-ing off the beach, weekending in Kangaroo Island, and camping and squidding on the stunning Yorke Peninsula. Within the city we have fully embraced the café and brunch culture, spent our afternoons in the impressive Adelaide Oval ‘learning’ the fast moving game of AFL (…Go Crows!) and have had many an evening enjoying the more sedate 5-day international cricket. Naturally all washed down with the legendary Adelaide food and wine…(seriously, we have yet to find better restaurant food anywhere else)

We may have also squeezed in a little bit of travelling… both within Australia with several weekends away in Perth, Sydney, Melbourne and Brisbane and further afield in Lombok, Hong Kong, Kuala Lumpur and New Zealand. Highlights for us would be whale shark diving and unspoilt coral in Exmouth; sailing the Whitsundays and Bay of Islands; enjoying the surf at beautiful Margaret River; bathing in natural thermal pools in the Coromandel coast and Mornington Peninsula; complete seclusion on Bedarra island in the Great Barrier Reef; New Year celebrations at Sydney Opera House and the annual pilgrimage to the Melbourne tennis open, complete with post match cocktails in a “secret” bar. Next year we hope to visit Tasmania, go snow skiing in Victoria and maybe even take a 4x4 through the far North and Kimberly… but a trip to the Pacific Islands before Christmas is next up!

Andrew

Although I was born in Adelaide, I left when I was 3 months old and developed a Scottish accent living near Glasgow. Completing University there, I moved to Belfast, Northern Ireland, and after internship I completed core physician training. With an interest in ICU, and keen to return to Adelaide, I applied for a 12-month rotation in RAH ICU.

The unit is a great place to work, and even better to allow you to explore South Australia and beyond with the excellent rostering skills of Kris (your new best friend). Over the past 12 months my wife and I have travelled as much as we could around Australia.

Top 3 destinations:
1. South Australia – completely under-rated, but Adelaide has great restaurants and the surrounding wine regions and beyond are great. I’ve drank copious wine, it’s dangerous! Visit Kangaroo Island, Yorke Peninsula and the wine regions for an idea of rural and country Australia.
2. Tasmania – great visit, take a car and spend a week driving the east coast. Stop as much as you can, and give yourself some time in Hobart. Although a bit cooler, it’s beautiful (like Scotland!).
3. Sydney – our favourite city we’ve visited, loads to do and see and the climate is great.

In 12 months we’ve visited all surrounding wine regions, Kangaroo Island, Yorke peninsula, Melbourne, Great Ocean Road and beyond to Adelaide, Grampians, Sydney, Tasmania, Hamilton Island, Noosa, Port Douglas, Cape Tribulation, Margaret River (definitely worth a visit) and Perth. We plan to visit Uluru before we leave too! In addition to travels, definitely catch an AFL game (the only team to see are the Adelaide Crows) and cricket at the oval, great fun! In-between all this you might have to work, it’s not too bad!

Jess

I’m an English junior doctor who came to Australia nearly 18 months ago with my boyfriend. I had completed my two intern years and then did a 6 month ‘clinical fellow’ post working in a busy district general ICU in London. I wanted to experience working in a tertiary ICU in another country where multiple tertiary services are provided in one hospital, which I have yet to experience in the UK.

The work life balance here is fantastic, which has enabled us to do plenty of travelling, both locally and interstate. Being able to go wine tasting for the day, or going to one of the south coast beaches camping for the night is such a great way to spend your days off. So far, locally we have visited Kangaroo Island, the Flinders Ranges, Yorke Peninsula as well as camping trips to Myponga, Waitpinga and Second Valley. Interstate, we have been to Melbourne and driven the Great Ocean Road, Sydney and the Blue Mountains, kayaked the Noosa Everglades, gone 4WD on Fraser Island, sailed around the Whitsundays, snorkelled the Great Barrier Reef and fished for Barramundi in Darwin. We hope to visit Tasmania, the Kimberleys, and Ningaloo Reef over the next 6 months.

Top 3 so far: West Bay on Kangaroo Island, sailing the Whitsundays, 4WD on Fraser Island.

Yvette

Hi! I’m from The Netherlands and in my fourth year of training to become an anaesthesiologist and after that planning to specialise in Intensive Care. Since I already worked in the ICU in the same hospital as my anaesthesia training I decided I would like to work in another hospital to broaden my experience and learn about a different way of working. And where better to do just that than in the beautiful Australia? I try to travel as much as I can and have so far been to Kangaroo Island, Flinders Ranges, Great Ocean Road, Melbourne, Sydney, Blue Mountains, Noosa and the tropical north from Townsville till Cooktown. I don’t think any place is more beautiful than the other, they are so diverse and maybe even more important with good coffee wherever you go!

www.icuadelaide.com.au
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;

- purchase of a resuscitation manikin (for FMC)
- purchase of a much-improved chest drain model (ultrasoundable)
- purchase of rapid infusion catheter (RIC) insertion models, collapsible tables for the ultrasound course, Survey Monkey subscription
- sponsorship of Trainee Lecture Series days at Ayers House (including travel for Prof Simon Finfer)
- funding for Departmental Subscription to Crit-IQ for ICU Consultants and Registrars
- sponsorship of research seminar - Critical Care and Gastrointestinal Disorders - coinciding with the visit of the 2014 Nimmo Professor (Prof Jan van Lanschot)
- covering the cost of this Newsletter!

Application forms for these scholarships can be downloaded from the RAH ICU website at www.icuadelaide.com.au/saica.html.

Any questions should be directed to;

Nick Edwards
C/- ICU, Royal Adelaide Hospital

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**Extracurricular Activities - Jadu’s Photography**

I have worked as an ICU Registrar at the RAH since 2013, and am also an amateur photographer and painter. From an early age I started drawing and painting, and art has always been a passion and dream. After moving to Australia, I took up photography and my main interests are macro, landscape and street photography. I have travelled across the world and captured beautiful pictures that are inspired by my observations of nature, people and the beautiful images around me.

Last year, I had my first exhibition in Adelaide at the South Australian Living Artist (SALA) festival, ‘In Retrospect’. I will be exhibiting again at this year’s SALA festival, ‘Oztraya-My Home’. My photos can be viewed on www.500px.com/magic67, as well as my website, www.jadusphotography.com. I hope to bring people together through my pictures by showing them places that they haven’t seen, and the beauty of different cultures and ways of life.
SOUTH AUSTRALIAN INTENSIVE CARE FELLOWSHIP EXAM (TUB’S) COURSE

15-17 February 2017.
28-30 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

Applications open 5 September 2016.
Enquiries to Dr Nick Edwards, c/- ICU, Royal Adelaide Hospital.
Email: chopper45@iprimus.com.au

SOUTH AUSTRALIAN CICM PRIMARY EXAMINATION COURSE

2 courses in 2017 (March and August) - dates to be confirmed.
24 candidates. For Registrars preparing for the CICM Primary examination.

Enquiries to Dr Mark Finnis, c/- ICU, Royal Adelaide Hospital.
Email: mark.finnis@adelaide.edu.au

SOUTH AUSTRALIAN CRITICAL CARE ULTRASOUND COURSE

1-2 September 2016. And February 2017 (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 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 4 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.

Coordinated by Dr Alex Wurm, C/- ICU, Royal Adelaide Hospital.
Email: alex.wurm@sa.gov.au

BASIC ASSESSMENT AND SUPPORT IN INTENSIVE CARE (BASIC) COURSE

28-29 November 2016. And February 2017 (date to be confirmed).

Enquiries to Dr Mike Anderson, C/- ICU, Royal Adelaide Hospital.
Email: Michael.Anderson2@sa.gov.au

POSTOPERATIVE CARE OF THE CARDIOTHORACIC PATIENT (PCCP) COURSE

August 2016 and February 2017 (Dates to be confirmed)
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: jdf Fraser62@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).