

# Pharmacy Department

# 2019

2019 was another successful year for the Pharmacy Department, with 32 peer reviewed publications, 36 oral presentations or posters, several staff awards and, for the third consecutive year, one of our intern pharmacists took out the prize for best intern paper at Monash University. We had one PhD completion and four staff are continuing to progress their PhD or Masters research programs.  
[Publication date: September 2020]

## Research Report



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# Overview

## HIGHLIGHTS

In terms of research output, 2019 was another successful year for the Austin Health Pharmacy Department. It saw the publication of 32 peer reviewed papers, including 19 new papers and 13 that were in the 2018 annual report (accepted for publication or published 'online early' during 2018). Several of our early career staff navigated their first publications through to completion. The department was represented at a broad range of state and national forums, with 36 oral presentations or posters delivered, including two of our interns presenting to a national audience. Our staff were involved in the presentation of 26 posters at the Austin Health Research Fest in October.

Several staff received state-wide and national recognition this year, these include:

- Jacinta Castello was awarded both the Victorian Pharmacy Resident of the Year and the National Pharmacy Resident of the Year from the Society of Hospital Pharmacists of Australia. This was for her work evaluating opioid use in patients following hip and knee arthroplasty.
- Sally Mitchell was awarded Victorian Pharmacy Technician of the Year by the Society of Hospital Pharmacists for her work in developing extended scope roles for hospital technicians, particularly in the surgery centre.
- Jim Siderov received the Order of Australia for services to oncology pharmacy practice.

For the third consecutive year, one of our intern pharmacists took out the prize for best intern paper at the Monash University Intern Foundation Program Presentation evening – congratulations to Airlie Broomfield for her work looking at the accuracy of allergy reporting in our electronic medical record.

One of our PhD candidates, Sam Lalic completed her candidature and we wish Sam all the very best in her future career as a clinician researcher.

A further highlight of 2019 was the Pharmacy Department Research Forum of poster and oral presentations, held in October. This event was attended by pharmacists and technicians, senior and junior, and the Chief Medical Officer, Deputy Chief Medical Officer and Manager of the Office for Research. It served several key purposes. It was an opportunity for those selected to present their work at national conferences and university seminars to practice delivering their presentations to an audience. The Forum was also an opportunity to celebrate the hard work and achievement of so many in our department and inform colleagues of the breath of projects and research being undertaken.



## LOOKING FORWARD

At the time of writing, the outlook for 2020 is uncertain, as the priority for the department is direct patient care and dealing with the Covid-19 pandemic. Building on the success of the Pharmacy Department Research Forum, we plan for this to be a regular fixture on our department calendar, although it is anticipated that the format will need to be quite different this year. We look forward to seeing the outcomes of the Intern Foundation Program projects and see several of our post-graduate research degree candidates further progress their programs towards completion.

Dr Simone Taylor  
Senior Pharmacist – Emergency Medicine and Research

Dr Rohan Elliott  
Senior Pharmacist – Aged Care and Research  
Manager, Victorian Poisons Information Centre.

February 2020

# Publications

*Papers, editorials and letters published in peer reviewed journals in 2019. Publications that were also included in the 2018 Pharmacy Department Research Report as an 'online early' or 'E-pub' publication are indicated with an asterix.\**

## 1. QUALITY USE OF MEDICINES

### Aged Care

**Elliott RA.** Reducing risk associated with sedative-hypnotic medications in older people [editorial]. Journal of Pharmacy Practice and Research 2019; 49: 207-9.

**Elliott R.** We are all geriatric medicine pharmacists. Australian Clinical Pharmacy Award oration. Pharmacy GRIT 2019; 3: 38-40.

Renehan E, Meyer C, **Elliott RA**, Batchelor F, Said C, Haines T, Goeman D. Post-hospital falls prevention intervention: a mixed-methods study. Journal of Aging and Physical Activity 2019; 27: 155-65.\*

Lee CY, Beanland C, Goeman DP, **Elliott RA.** Challenges and barriers associated with medication management for home nursing clients in Australia: a qualitative study combining the perspectives of community nurses, community pharmacists and general practitioners. Family Practice 2019; 36: 332-42.\*

### Emergency Medicine

Hendarto A, **Harding AM**, Kant JA, Hunter MT, Taylor DM. Misappropriation of Drugs and Equipment in the Emergency Department. Australasian Emergency Care 2019; 22: 92-6.\*

Welch S, Currey E, Doran E, **Harding A**, Roman C, **Taylor S**, Thomas A, Munro C. Standard of practice in emergency medicine for pharmacy services. Journal of Pharmacy Practice and Research 2019; 49: 570-84.

Schwartz GD, **Harding AM**, Donaldson SR, Green SL. Modifying emergency department electronic prescribing for outpatient opioid analgesia. Emergency Medicine Australasia. 2019; 31: 417-22.\*

Yap CYL, Taylor DM, Kong DCM, Knott JC, **Taylor SE**, Gaudins A, Keijzers G, Kulawickrama S, Thom O, Lawton L, Furyk J, Finucci D, Holdgate A, Watkins G, Jordan P. Management of behavioural emergencies: a prospective observational study in Australian emergency departments. Journal of Pharmacy Practice and Research 2019; 49; 341-8.

### Infectious Diseases

**Khumra S**, Mahony AA, **Devchand M**, **Walker ST**, **Garrett K**, Grayson ML, Trubiano JA. Counting the cost of critical antibiotic shortages. Journal of Antimicrobial Chemotherapy 2019; 74: 273-5.

Paige E, Haywood P, Xie M, Worth L, Thursky K, **Urbancic K**, Bajel A, Slavin M. Auditing fungal disease in leukemia patients in a tertiary care center: opportunities and challenges for an antifungal stewardship program. *Leukemia & Lymphoma* 2019; 60: 2373-83.

**Devchand M**, Kirkpatrick CMJ, Stevenson W, **Garrett K**, **Perera D**, **Khumra S**, **Urbancic K**, Grayson ML, Trubiano JA. Evaluation of a pharmacist-led penicillin allergy de-labelling ward round: a novel antimicrobial stewardship intervention. *Journal of Antimicrobial Chemotherapy* 2019; 74: 1725-30.

Moran R, **Devchand M**, Smibert O, Trubiano JA. Antibiotic allergy labels in hospitalized and critically ill adults: A review of current impacts of inaccurate labelling. *British Journal of Clinical Pharmacology* 2019; 85: 492-500.

**Devchand M**, Stewardson AJ, **Urbancic KF**, **Khumra S**, Mahony AA, **Walker S**, **Garrett K**, Grayson ML, Trubiano JA. Outcomes of an electronic medical record (EMR)-driven intensive care unit (ICU)-antimicrobial stewardship (AMS) ward round: Assessing the "Five Moments of Antimicrobial Prescribing". *Infection Control & Hospital Epidemiology* 2019; 40: 1170-5.

Moran RL, **Devchand M**, Churilov L, Warrillow S, Trubiano JA. The burden of antibiotic allergies in adults in an Australian intensive care unit: the BASIS study. *Critical Care Resuscitation* 2019; 21: 265-73.

**Devchand M**, **Urbancic KF**, **Khumra S**, Douglas AP, Smibert O, Cohen E, Sutherland M, Phillips EJ, Trubiano JA. Pathways to improved antibiotic allergy and antimicrobial stewardship practice: The validation of a beta-lactam antibiotic allergy assessment tool. *Journal of Allergy and Clinical Immunology: In Practice* 2019; 7: 1063-5.\*

Trubiano J, **Keith C**, **Devchand M**, **Garrett K**. The global implications of the gentamicin histamine contamination – sorting fact from fiction. *Antimicrobial Agents and Chemotherapy* 2019; 63: e02053-18.\*

### **Oncology**

Meher-Homji Z, Tam CS, **Siderov J**, et al. High prevalence of antibiotic allergies in cladribine-treated patients with hairy cell leukemia – lessons for immunopathogenesis and prescribing. *Leukemia & Lymphoma* 2019; 60: 3455-60.

**Siderov J**. Utility of PhaSeal, a closed-system drug transfer device, in facilitating vial sharing to reduce waste and assist in medication cost savings. *Journal of Pharmacy Practice and Research* 2019; 49: 421-5.\*

## 2. MEDICATION SAFETY AND PHARMACOVIGILANCE

McMaster C, **Liew D, Keith C, Aminian P**, Frauman A. A machine-learning algorithm to optimise automated adverse drug reaction detection from clinical coding. *Drug Safety* 2019; 42: 721-5.

**McLachlan G, Keith C**, Frauman A. Diabetic ketoacidosis with sodium-glucose cotransporter type 2 inhibitors: a case series. *Medical Journal of Australia* 2019; 211: 237.

**Keith C, McLachlan G, Aminian P**. Melbourne meet-up of medicines information specialists – expert pharmacists connect, cultivate skills and collaborate. *Pharmacy GRIT* 2019; 3: 80.

Peterson A, **Aminian P**, Hey P, Gow P. Acute opioid withdrawal following administration of oral oxycodone-naloxone due to portosystemic shunts. *Journal of Pharmacy Practice and Research* 2019; 49: 55-7.

Trubiano JA, **Keith C, Devchand M, Garrett K**. The global implications of the gentamicin histamine contamination: sorting fact from fiction. *Antimicrobial Agents and Chemotherapy* 2019; 63: e02053-18.\*

Booth J, **Keith C, Tanner F, Siderov J, Aminian P**. Hazardous non-cytotoxic medicines: uncertainty around safe handling? A new workplace guideline for hospital staff. *Journal of Pharmacy Practice and Research* 2019; 49: 62-8.\*

**Lalic S**, Ilomäki J, Bell JS, Korhonen MJ, Gisev, N. Prevalence and incidence of prescription opioid analgesic use in Australia. *British Journal of Clinical Pharmacology*. 2019; 85: 202-15.\*

**Lalic S**, Jokanovic N, Ilomaki J, Gisev N, Lloyd B, Lubman DI, Bell S. Harms associated with extramedical use of prescription opioid analgesics in Australia: A scoping review. *Research in Social and Administrative Pharmacy* 2019; 15: 925-35.\*


Van de Vreede M, **McGrath A**, de Clifford J. review of medication errors that are new or likely to occur more frequently with electronic medication management systems. *Australian Health Review* 2019; 43: 276-83.\*

**Tran T, Taylor SE**, Hardidge A, **Mitri E, Aminian P**, George J, **Elliott RA**. The prevalence and nature of medication errors and adverse events related to preadmission medications when patients are admitted to an orthopedic inpatient unit: an observational study. *Annals of Pharmacotherapy* 2019; 53: 252-60.\*

## 3. PHARMACY SERVICE DESIGN AND DELIVERY (HEALTH SERVICES RESEARCH)

**To TP**, Brien JA, Story DA. Barriers to managing medications appropriately when patients have restrictions on oral intake. *Journal of Evaluation in Clinical Practice* Epub 2019 Apr 10. DOI: 10.1111/jep.13139.

**To TP**, Dunnachie G, Brien JA, Story DA. Surgical nurses' perceptions and experiences of a medications and oral restrictions policy change: A focus group study. *Journal of Clinical Nursing* 2019; 28: 3242-51.



**Tran T, Johnson DF, Balassone J, Tanner F, Cha V, Garrett K.** Effect of an integrated clinical pharmacy service with the general medical units on patient flow and medical staff satisfaction: a pre- and postintervention study. *Journal of Pharmacy Practice and Research* 2019; 49: 538-45.

**Tran T, Taylor SE, Hardidge A, Mitri E, Aminian P, George J, Elliott RA.** Pharmacist-assisted electronic prescribing at the time of admission to an inpatient orthopaedic unit and its impact on medication errors: a pre- and post-intervention study. *Therapeutic Advances in Drug Safety* 2019. 10: 1-10. DOI 2042098619863985.



# Conference/Seminar Oral Presentations and Posters

*Research papers and posters, and continuing professional development lectures/workshops, presented externally in 2019*

## 1. QUALITY USE OF MEDICINES

### Aged Care

**Elliott R**, Cross A, Woodward M, et al. Pharmacist-led deprescribing of potentially inappropriate medication in a memory clinic: the DePIMM feasibility study. The Society of Hospital Pharmacists of Australia 45th National Conference, Gold Coast 2019 (November 14-16)

**Reid O, Lalic S, Elliott R**. Are we overdosing older people with paracetamol in hospital? The Society of Hospital Pharmacists of Australia 45th National Conference, Gold Coast 2019 (November 14-16)

**Elliott R**. Standard of practice in geriatric medicine for pharmacy services. Medicines Management 2019, the 45th National Conference of the Society of Hospital Pharmacists of Australia, pre-conference workshop (November 12)

**Elliott R**. Challenges in the management of insomnia in older people. ConPharm 2019, Australian Association of Consultant Pharmacy, Melbourne 2019 (June 28-30)

Cross AJ, George J, Woodward MC, **Elliott RA**. Addressing inappropriate medication use in people with dementia: a role for pharmacists in memory clinics? 4th Australian Dementia Forum, Hobart 2019 (June 13-14)

**Elliott R**, Cross A. Deprescribing potentially inappropriate medicines in patient attending memory clinics (DePIMM). VicTAG/Safer Care Victoria Medicines Roundtable, Melbourne 2019 (July 25).


### Emergency Medicine

**Nguyen J, Harding A**, Greene S. Proportion of patients who transition to long-term opioid use following oxycodone initiation in the ED. 36th Annual Scientific Meeting of the Australasian College for Emergency Medicine 2019 (November 17-21)

**Taylor SE**. ED pharmacy perspectives: ED medicines screening tool update. Society of Hospital Pharmacists of Australia Emergency Medicine Advanced Seminar, Sydney 2019 (August)

### Infectious Diseases

**Devchand M**. Evaluation of a pharmacist-led penicillin allergy de-labelling ward-round – A novel antimicrobial stewardship intervention, ASID, Darwin, May 2019



**Urbancic KF**, Kong DCM, Johnson PDR, Slavin MA, Thursky K. Antifungal Stewardship in Australian Hospitals: Time for a Deeper Dive, Antimicrobials 2019, Australian Society for Antimicrobials, Sydney. #P087

**Urbancic KF**, Kong DCM, Johnson PDR, Slavin MA, Thursky K. Antifungal Stewardship in Australian Hospitals: the tip of an (enormous) iceberg, ECCMID, Amsterdam 2019. #P2108

**Urbancic K.** Antifungals: an overview of what pharmacists need to know. Society of Hospital Pharmacists of Australia Society, Victorian Branch Continuing Professional Development webinar (November 2019)

**Ching M.** Cytokine release syndrome. Society of Hospital Pharmacists of Australia Continuing Professional Development webinar (October 30, 2019)

Campfield S, Grace J, **Newman M.** Community-based model of care for hepatitis C treatment. Australasian Viral Hepatitis Elimination Conference, (August 2019)

**Newman M.** Where's Wallan – running a hospital outpatient hepatitis clinic in the community. Society of Hospital Pharmacists of Australia, Victorian Branch Symposium (September 2019)

### **Oncology**

Donati V, Vassili C, **Siderov J**, Edwards A, Darby O, Tiong IS, Flemming S, Batterham E. Blinatumomab neurotoxicity assessment tool for adults diagnosed with B-cell acute lymphoblastic leukaemia. Blood 2019 conference, Perth, WA (October 20-23)

## **2. MEDICATION SAFETY AND PHARMACOVIGILANCE**

**McLachlan G.** The cost of pharmacovigilance: a time-and-motion study of an adverse drug reaction program. The Society of Hospital Pharmacists of Australia 45th National Conference, Gold Coast 2019 (November 14-16)

**Keith C.** Using 'big data' to find adverse drug reactions: a refine ICD-10 coding tool in practice. The Society of Hospital Pharmacists of Australia 45th National Conference, Gold Coast 2019 (November 14-16)

**Keith C.** Temperature excursions. Medicines information workshop. Austin Health, Heidelberg, February 2019

**McLachlan G.** Training in Medicines Information. Medicines information workshop. Austin Health, Heidelberg, February 2019

**McLachlan G.** Stock shortages. Medicines information workshop. Austin Health, Heidelberg, February 2019

**Matthews H.** Oral chemotherapy dispensing check process. SHPA Victorian Branch Annual Symposium - Innovation in Pharmacy Operations, September 4 2019, Monash University, Parkville.

**Aminian P, Booth K, Tyedin A.** Slow release opioids post surgery; what messages are patients receiving? What messages are local doctors receiving? Austin Health Opioid Management Roundtable, April 2019

**McLachlan G, Keith C,** Frauman A. Euglycaemic diabetic ketoacidosis with SGLT2 inhibitors: is it more than a perioperative problem. The Society of Hospital Pharmacists of Australia 45th National Conference, Gold Coast 2019 (November 14-16)

**Broomfield A, McLachlan G, Elliott R.** Can you trust adverse drug reaction recording? An audit of electronic medical records. The Society of Hospital Pharmacists of Australia 45th National Conference, Gold Coast 2019 (November 14-16)

**McLachlan G, Keith C, Siderov J, Tanner F, Wood C.** Special handling required! Implementing a hazardous medicines guideline, tertiary hospital setting. Giant Steps (Safer Care Victoria), Melbourne, November.

**Thorp N.** Flecainide's role in refractory neuropathic pain: a case report. The Society of Hospital Pharmacists of Australia 45th National Conference, Gold Coast 2019 (November 14-16)

**Aminian P, Su E,** Liew D, **Lalic S,** Wilsdon T, Liu B, Jammali-Blasi A, Frauman A, **Garrett K.** Turning the tide: an organizational approach to Australia's opioid epidemic. The Society of Hospital Pharmacists of Australia 45th National Conference, Gold Coast 2019 (November 14-16)

**Su E, Aminian P,** Liew D, **McGrath A, Tanner F.** Keeping it cool! A systematic approach to cold chain management. The Society of Hospital Pharmacists of Australia 45th National Conference, Gold Coast 2019 (November 14-16)

### 3. PHARMACY SERVICE DESIGN AND DELIVERY (HEALTH SERVICES RESEARCH)

**Tran T, Castello J, Elliott R,** et al. Evaluation of communication to general practitioners when opioid-naive post-surgical patients are discharged on opioids. The Society of Hospital Pharmacists of Australia 45th National Conference, Gold Coast 2019 (November 14-16)

**Su E,** McMaster C, **Aminian P,** Wilsdon T, Liu B, **Elliott R,** Liew D. A practical approach to using the Drug Burden Index to guide deprescribing of sedatives and anticholinergics. Choosing Wisely Australia National Meeting, Melbourne 2019 (May 30)

**Khumra S,** Mahony, **Urbancic K,** Rawlins M, Bergen P, **Elliott R.** Exploring the confidence and educational needs of pharmacists in reviewing antimicrobials: a cross-sectional, nationwide survey. Australian Society for Antimicrobials 20th Annual Scientific Meeting, Sydney 2019 (February 21-23)

**Anderson B, Carroll M, Taylor S, Chow A.** Expanded roles for pharmacy technicians: Victorian metropolitan teaching hospital survey reveals some waves of support. The Society of Hospital Pharmacists of Australia 45th National Conference, Gold Coast 2019 (November 14-16)

**Anderson B, Mitchell S, Verde A, Taylor S, Carroll M, Chow A, Droney J, El-Katateny E, Than J, Hilley P, Trajceska L, Spencer K.** Uncharted waters. Pharmacy technicians educating patients on discharge medications: training for expanded technician roles, The Society of Hospital Pharmacists of Australia 45th National Conference, Gold Coast 2019 (November 14-16)

**Castello J.** Opioid use following total knee and hip arthroplasty - not always a case of oversupply. The Society of Hospital Pharmacists of Australia 45th National Conference, Gold Coast 2019 (November 14-16)

**Tran T, Johnson DF, Balassone J, Tanner F, Chan V, Garrett K.** A collaborative approach between pharmacy and general medicine to improve flow and medical staff satisfaction. The Society of Hospital Pharmacists of Australia 45th National Conference, Gold Coast 2019 (November 14-16) and Austin Health Research Fest, 2019 (October 9-17)

### AUSTIN HEALTH RESEARCH FEST 2019 POSTERS

*The following posters were presented at the Austin Health Research Fest 2019, October 9-17.*

**Richardson BR, Kirkpatrick C, Tran T, Taylor S, Harding AM.** Who needs our attention most? Comparison of admission medication errors in surgical and medical patients.

**Anderson B, El-Katateny E, Mitchell S, Verde A, Carroll M, Taylor S.** Discharge medication patient education: evaluation of training for advanced practice pharmacy technician roles

**McGrath A, Ho, L.** Optimising venous thromboembolism prophylaxis in post-surgical patients: are electronic medication management systems a silver bullet?

**Keith C, McMaster C, McLachlan G, Liew D, Keith C.** "Big data" automated approach to Adverse Drug Reaction detection - refined ICD-10 coding tool in practice

**Walker S, Cohen E, Grigg A, Trubiano J,** A NIFTY intervention: empowering nursing staff to initiate preprescribed antibiotic order for haematology patients that develop febrile neutropenia


**Nguyen J, Harding A, Greene S.** Proportion of patients who transition to long-term opioid use following oxycodone initiation in the ED.

**Elmi H, Pisasale D, Taylor S, Kebire O, Abbott L.** Ketamine in the emergency department: identifying a dose strength to minimise medication errors and diversion.

**Keith C, Ear L, Taylor S.** 9 year case-series - cefalexin hypersensitivity reactions; not so rare, not so benign

**Aminian P, Su E, Liew D, Lalic S, Wilsdon T, Liu B, Jammali-Blasi A, Frauman A, Garrett K.** An organisational approach to Australia's opioid epidemic.

**Su E, Wilsdon T, Liew D, Yu C, Ting A, Kalogianis M, Le D, Nguyen S, Balassone J, Lalic S, Aminian P, Liu B, Jammali-Blasi A, Leung C.** A systems-based approach to deprescribing PPIs.



**Su E, Aminian P, Liew D, McGrath A, Tanner F.** Keeping it cool! A systematic approach to cold chain management Keeping it cool! A systematic approach to cold chain management

**Pisasale D, Tran T, Taylor S, George J, Pisasale D, Batrouney A, Ngo J, Stanley B, Elliott R.** Evaluation of communication to General Practitioners for opioid-naïve post-surgical patients discharged on opioids.

**McLachlan G, Keith C, Wood C.** The cost of pharmacovigilance: a time-and-motion study of an adverse drug reaction program

**McLachlan G, Keith C, Frauman A.** Euglycaemic diabetic ketoacidosis with SGLT2 inhibitors: is it more than just a perioperative problem?

**Tran T, Castello J, Taylor S, Hardidge A, Cannizzaro S, George J, Elliott R.** Opioid use following total knee or hip arthroplasty - not always a case of oversupply.

**Tran T, Johnson DE, Balassone J, Tanner F, Chan V, Garrett K.** A collaborative approach between pharmacy and general medicine to improve flow and medical staff satisfaction.

**Moushi J, Siderov J, Taylor S.** Evaluation of the safety of induction chemotherapy in obese patients with acute myeloid leukemia: a retrospective pilot study.

**Broomfield A, Elliott R, McLachlan G.** Can you trust adverse drug reaction recording? An audit of electronic medical records

Liu B, McMaster C, Liew D, Frauman A, **Su E, Joules E, Aminian P,** Buchanan R. Opioid Burden is Reduced in Lower Back Pain Inpatients admitted Under Rheumatology, but not General Medicine

**Devchand M, Cohen E, Walker S, Trubiano JA.** Empowering haematology nurses to assess patient-reported antibiotic allergies: the implementation of a validated antibiotic allergy assessment tool (AAAT)

Meher-Homji Z, Tam C, **Siderov J,** Seymour J, Slavin MA, Trubiano JA. High prevalence of antibiotic allergies in Cladribine-treated hairy cell leukaemia patients- lessons for immunopathogenesis and prescribing

Campfield S, **Newman M,** Grace J. Community-based “One Stop Shop” Model of Care for Hepatitis C Treatment

**Aminian P, Booth K, Tyedin A, Liew D, Su E, Wilsdon T, Liu B, Jammali-Blasi A, Frauman A, Garrett K.** Slow-release opioids post-surgery: what messages are patients receiving?

**Morison L, Elliott R, Lalic S, Su E.** Compliance with hospital guidelines for antipsychotic prescribing in the management of delirium: a retrospective audit

**Reid O, Elliott R, Lalic S.** Are we overdosing older people with paracetamol in hospital?

**Khumra S, Mahony A, Trubiano J, Bergen P, Elliott R.** Evaluation of the practice of intravenous to oral antimicrobial switch in hospitalised patients



## Grants and awards

### **Jim Siderov**

- Order of Australia (AM)

### **Jacinta Castello**

- SHPA Victorian Pharmacy Resident of the year 2019
- SHPA National Pharmacy Resident of the year 2019

### **Sally Mitchell**

- SHPA Victorian Technician of the year 2019

### **Rohan Elliott**

- Associate investigator, NHMRC Boosting Dementia Research Grant: George J, et al. Preventing memory impairment and dementia (HAPPI MIND trial). APP1171851, NHMRC 2019 (\$1,999,499).

### **Melissa Newman** (with Susan Campfield and Josephine Grace).

- Community-based model of care for hepatitis C treatment. Short-listed for Clinical or Patient care Nursing Award. Austin Health ResearchFest, October 2019.

### **Airley Broomfield**

- Monash University Intern Foundation Program, Best Poster Presentation 2019

### **Claire Keith**

- SHPA Fellowship, April 2019

# Research degree involvement

## 1. PHD CANDIDATES

### **Phung To**

Medication management during periods of restricted oral intake, University of Melbourne (part-time, 2015 - ongoing)

### **Karen Urbancic**

Antifungal stewardship in immunocompromised patients including solid organ transplant and haematology patients, University of Melbourne, National Centre for Antimicrobial Stewardship (part-time, 2016 - ongoing)

### **Tim Tran**

Expanding pharmacists' roles in medication management for surgical inpatients. Monash University (part-time, 2014 - ongoing)

### **Samata Lalic**

Harms associated with prescription opioid analgesics: prevalence and factors. Monash University (full-time, 2016 - 2019)

## 2. MASTER OF PHARMACY CANDIDATES

### **Sharmila Melvani**

Enhancing pharmacists' roles in antimicrobial stewardship. Monash University (part-time, 2016 - ongoing)

## 3. SUPERVISORS

### **Rohan Elliott**

Sharmila Melvani. Enhancing pharmacists' roles in antimicrobial stewardship. MPharm (part-time, 2016 - ongoing)

Tim Tran. Expanding pharmacists' roles in medication management for surgical inpatients. PhD (part-time, 2014 - ongoing)

Amanda Cross. Optimising medication use and medication management in older people with cognitive impairment, PhD (full-time, 2015 - 2019)



**Simone Taylor**

Tim Tran. Expanding pharmacists' roles in medication management for surgical inpatients. *PhD* (part-time, 2014 - ongoing)

**4. RESEARCH DEGREE PANEL MEMBERS**

**Rohan Elliott**

Samanta Lalic. Harms associated with prescription opioid analgesics. PhD, Monash University (full time, 2016 - 2019)



# Intern Foundation Program Projects

## Airley Broomfield

Assessment of the completeness and accuracy of allergy documentation on Cerner (n=210)

Supervisors: **Claire Keith, Gina McLachlan, Rohan Elliott**

- Only 50% of ADRs had complete documentation, 30% of ADRs did not specify the reaction. Process improvement is required.
- Presented at Austin Health ResearchFest (October 2019) and Monash University Intern Foundation Program Presentation Evening (November 2019) and The Society of Hospital Pharmacists of Australia 45th National Conference, Gold Coast 2019 (November 14-16)

## Helena Cangadis-Douglas

Concordance with ED DVT guideline in patients with a potential or confirmed DVT (n=51)

Supervisors: **Kat Hunt, Simone Taylor**

- Guideline concordance was excellent for initial medication initiated. Harmonisation is needed between ED and Hematology guidelines
- Presented at the Monash University Intern Foundation Program Presentation Evening (November 2019)

## Ben Davey

Assessment of inhaler technique of hospital inpatients.

Supervisors: **Alison Tyedin, Rohan Elliott**

- Over half of patients observed were unable to demonstrate correct inhaler technique for their prescribed device. The most common error was failure to exhale prior to creating a seal around the mouthpiece. Inhaler technique was often not checked in the first 24 hours of hospital admission.
- Presented at the Monash University Intern Foundation Program Presentation Evening (November 2019)

## Lynette Ear

Case series of cefalexin ADRs reported over a nine year period

Supervisors: **Claire Keith, Simone Taylor**

- In excess of 80% of reported adverse reactions were moderate or severe and 56% were of certain or probable causality.
- In 75% of cases, cefalexin was the sole medication exposure.
- Presented at Austin Health ResearchFest (October 2019) and Monash University Intern Foundation Program Presentation Evening (November 2019)

## Huda Elmi

Ketamine in ED: identifying a dose strength to minimise errors and diversion

Supervisors: **Daisy Pisasale, Simone Taylor**

- Over half (52.1%) of the individual ketamine doses were less than 20mg. In addition, over half (55.7%) of the patients required only a single dose of ketamine.

- Presented at the Monash University Intern Foundation Program Presentation Evening (November 2019)

#### **Ella El Katateny**

Pharmacy technicians educating patients on discharge medications: training for expanded technician roles

Supervisors/Research team: **Brett Anderson, Sally Mitchell, Andrea Verde, Simone Taylor, Margaret Carroll, Alice Chow, Jayne Droney, Jenny Than, Patrick Hilley, Ljubica Trajceska, Kathy Spencer**

- Patients were highly satisfied with the education received from both the technician and pharmacists.
- This comprehensive training development model may be applied to other technician role expansion projects. Such roles may afford technicians increased job satisfaction and enable pharmacists to better use their clinical decision-making expertise.
- Presented at Austin Health ResearchFest (October 2019) and Monash University Intern Foundation Program Presentation Evening (November 2019) and The Society of Hospital Pharmacists of Australia 45th National Conference, Gold Coast 2019 (November 14-16)

#### **Jala Moushi**

Comparison of toxicity and length of stay in obese and non-obese patients treated for AML with cytarabine and idarubicin at full dose for BSA.

Supervisors: **Jim Siderov, Simone Taylor**

- Obese patients with AML being treated with 7+3 induction chemo have similar risk of cardiotoxicity and LOS. Obese patients may be at increased risk of ocular toxicity.
- Presented at Austin Health ResearchFest (October 2019) and Monash University Intern Foundation Program Presentation Evening (November 2019)

#### **Lucy Morison**

Compliance with antipsychotic prescribing guidelines when treating delirium.

Supervisors: **Rohan Elliott, Liz Su**

- Strategies are needed to improve compliance with delirium guidelines and documentation of symptoms and consent when prescribing antipsychotics.
- Presented at Austin Health ResearchFest (October 2019) and Monash University Intern Foundation Program Presentation Evening (November 2019) and The Society of Hospital Pharmacists of Australia 45th National Conference, Gold Coast 2019 (November 14-16)

#### **Olivia Reid**

Are older inpatients weighing <50kg prescribed excessive paracetamol doses?

Supervisors: **Rohan Elliott, Sam Lalic**

- More than 60% of older patients weighing <50kg received potentially excessive paracetamol doses.
- Presented at Austin Health ResearchFest (October 2019) and Monash University Intern Foundation Program Presentation Evening (November 2019) and The Society of Hospital Pharmacists of Australia 45th National Conference, Gold Coast 2019 (November 14-16)

# Ongoing and recently completed projects

## 1. QUALITY USE OF MEDICINES

### Aged Care

**Boutros Y, Elliott R, Taylor S, Tran T.** An evaluation of how residential care facilities use hospital pharmacy-provided interim medication administration charts and medications.

Cross AJ, **Elliott RA**, George J. Interventions for improving medication-taking ability and adherence in older adults prescribed multiple medications. Cochrane Systematic Review.

**Elliott R**, et al. Better Health North East Melbourne – Frail Aged Project, Medication Review Workstream: Implementation of an integrated pharmacist Home Medicines Review within a geriatrician-led frailty clinic at Banyule Community Health Service, to address polypharmacy and other medication-related problems in older people with mild to moderate frailty.

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### Infectious Diseases

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## 2. MEDICATION SAFETY AND PHARMACOVIGILANCE

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## 3. PHARMACY SERVICE DESIGN AND DELIVERY (HEALTH SERVICES RESEARCH)

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**Anderson B, Chow A, Carroll M, Taylor SE**. Pharmacy staff perceptions of expanded roles for hospital pharmacy technicians.



# Research Collaborators

## AUSTIN HEALTH DEPARTMENTS

- Aged Care
- Clinical Pharmacology
- Emergency
- General Medicine
- Infectious Diseases
- Liver Transplant Unit
- Oncology
- Orthopaedics
- Victorian Poisons Information Centre

## UNIVERSITIES

- Deakin University
- La Trobe University
- Monash University
- RMIT University
- University of Melbourne

## AUSTRALIAN HOSPITALS

- Barwon Health
- Casey Hospital
- Dandenong Hospital
- Monash Medical Centre – Clayton
- Northeast Health – Wangaratta
- Royal Melbourne Hospital
- Flinders Medical Centre (SA)
- Prince of Wales Hospital (NSW)
- Princess Alexandra Hospital (QLD)
- The Prince Charles Hospital (QLD)
- The Townsville Hospital (QLD)
- St Vincent’s Hospital (VIC)

## OTHER ORGANISATIONS

- Banyule Community Health
- North Western Primary Health Network
- Eastern Melbourne Primary Health Network