

Pharmacy Department

2018

The past year has been highly productive from a research point-of-view, with publication of 37 papers, two of the eight best abstracts submitted for the SHPA Medicines Management Conference 2018 coming from Austin Health-led projects, and one of our interns again taking out the prize for best intern paper at Monash University. In addition, three Master of Clinical Pharmacy candidates successfully completed their research projects and four staff continue to progress with their PhD programs of research.

[Publication date: February 2019]

Research Report



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Overview

HIGHLIGHTS

The past year has been another successful year of research endeavor within the Pharmacy Department. Highlights include:

- As a department, we produced a total of 37 publications in 2018, surpassing our excellent outcome of 26 publications in 2017. Reflecting the cyclical nature of research, we also have several publications under peer review, which suggests that 2019 will also be a successful year for publications. It is also very pleasing to see the increasing number and breadth of seniority of staff publishing their important work.
- Building upon our Intern Foundation Program (IFP) success in 2017 which saw Jennie Nguyen awarded the Best IFP Paper, in 2018 Vasilios Sotiropoulos won the same award for his work evaluating the health economics of Eplclusa treatment in Hepatitis C patients. This success is testament to the high caliber of interns that we recruit and the support provided by staff throughout the department.
- Our three Master of Clinical Pharmacy candidates, Misha Devchand, Belinda Richardson and Steven Walker successfully completed their research projects. We look forward to seeing these projects published in the coming year.
- Of eight abstracts showcased in the 'Time to Shine' section of the Society of Hospital Pharmacists of Australia's Medicines Management 2018 Conference in Brisbane, two were projects led by our department. Rohan Elliott presented the work undertaken to assess the accuracy of medication regimen information accessed from the cloud using Medview. Simone Taylor presented on a national multi-centre project that is developing screening tools to help emergency department staff identify patients at greatest risk for medication related problems across the emergency department continuum of care.
- Late in 2018 saw the launch of our Pharmacy Department Twitter account, ably coordinated by Claire Keith and Rohan Elliott. Our account is @Austin_HealthRx, with a focus on promoting research and best practice projects both within Austin Health and beyond. For the 3 months from October 2018 our tweet with the most likes was posted on 19/11/2018 congratulating our interns on presenting their diverse range of research projects at @MonashPharm. Our top re-tweet related to the publication in @the_shpa journal of the hazardous medicines handling project.

KEY PUBLICATIONS

Claire Keith, Jane Booth and Jim Siderov's work in 'Handling of hazardous non-cytotoxic medicines' (<https://onlinelibrary.wiley.com/doi/10.1002/jppr.1502>) attracted significant interest from hospitals around Australia and in New Zealand. The authors received enquiries from Monash Health VIC, Barwon Health VIC, Canterbury Health Board NZ, Calvary Hospital ACT, Melbourne Health VIC, and SHPA publications (authors of the book Don't Rush to Crush), highlighting the Australasian impact of this project, supported by a VicTAG grant.

Sam Lalic and her PhD supervisory team received national media coverage regarding their publication in the prestigious British Journal of Pharmacology of their work looking at the prevalence of prescription opioid analgesic use in Australia, comparing the characteristics of people with and without cancer initiating prescription opioid analgesics. This retrospective study used a random sample of adults who were dispensed prescription opioid analgesics in Australia between July 2013 and June 2017 through the Pharmaceutical Benefits Scheme. There were between 287,677 to 307,772 prevalent users each year. Rates of opioid use have remained high since 2013, with approximately 3 million adults using opioids and over 1.9 million adults initiating opioids each year. People without cancer account for the majority of opioid use and are more likely to be initiated on short-acting and weak opioids. Sam and her team concluded that initiation of strong opioids has increased over time, reinforcing concerns about increased use and harms associated with strong opioids in the community.

MAJOR PROJECTS

Opioid prescribing

Several of our staff are undertaking work of national importance regarding the optimal prescribing and use of strong opioids. Tim Tran's PhD projects have identified that hip and knee arthroplasty patients likely have an ongoing need for strong opioids post hospital discharge to facilitate their participation in rehabilitation, highlighting that not all patients should receive less opioids. Sam Lalic is undertaking several studies to identify population predictors of opioid use. Our Medication Optimisation Service team of pharmacists and medical staff are also doing work in this area to describe opioid use in our organization and identify interventions to optimize use of these agents – interventions likely to be of relevance to many hospitals nationally.

Identifying patients at risk of medicine-related problems in the emergency department

It is well known that medications are associated with considerable morbidity and mortality in patients attending emergency departments (ED). Our ED pharmacists, Elise Mitri, Andrew Harding and Simone Taylor are collaborating with Deakin University on a project entitled: 'Development and validation of screening tools for medicine-related problems at patient presentation and after discharge from the emergency department.' The aim of the project is to develop a tool that will predict high-risk patients and provide the best utilisation of the ED pharmacist resource. The project is a national study with many EDs



participating around the country. Phase 1 (development of the tool) is complete and two manuscripts are in preparation. Phase 2 (validation of the tool) is ongoing.

Medication management in the home nursing environment

Increasing numbers of older people receive support with medication management from home nursing services. As a health service, we refer many patients to these services. Medication management for these clients can be complex and there is significant risk of medication errors. Rohan Elliott, Senior Aged Care Pharmacist, collaborated with Bolton Clarke (formerly RDNS) and the Eastern Melbourne PHN to develop and pilot a clinical pharmacy service integrated with a home nursing service. This intervention reduced the number of medication errors and was highly valued by patients, carers and community nurses. It has potential to be rolled out to other home nursing services.

LOOKING FORWARD

In the coming year we plan to further develop the role and structure of the Pharmacy Department's Research Committee, building upon the foundation begun in 2018. We aim to further define priority areas of focus and expertise within the department. This will assist in developing focused track record to facilitate grant applications.

With the increasing number of staff expressing interest in, and needing to undertake, research projects, particularly during their internship, residency and post-graduate degree programs, I very much welcome the expertise of Dr Rohan Elliott, our Senior Pharmacist – Aged Care, who will be dedicating at least one day per week to assist me in supporting the department's research program. In the coming year we are likely to also have increased input into the Monash University entry-level Master of Pharmacy research program. Rohan has supervised several post-graduate research degree candidates over the years, therefore has an in-depth understanding of both the hospital and university environments, not to mention an impressive track record of research endeavor, publication and grant application success.

Dr Simone Taylor
Senior Pharmacist – Emergency Medicine and Research
February 2019

Publications

1. QUALITY USE OF MEDICINES

Aged Care

Kalogianis MJ, Elliott RA. Development of antipsychotic consumer medicines information. Pharmacy GRIT Winter 2018- SHPA-NAPSA Student Supplement.

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* [Published online 28 October 2018; doi: 10.1123/japa.2017-0406].

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* [Published online 3 September 2018; doi.org/10.1093/fampra/cmy073].

Page AT, Cross AJ, **Elliott RA**, Pond D, Dooley M, Beanland C, Etherton-Beer CD. Integrate healthcare to provide multidisciplinary consumer-centred medication management: report from a working group formed from the National Stakeholders' Meeting for the Quality Use of Medicines to Optimise Ageing in Older Australians. *Journal of Pharmacy Practice & Research* 2018; 48: 459-66.

Fanning L, Vo L, Ilomäki J, Bell JS, **Elliott RA**, Dārziņš P. Validity of electronic hospital discharge prescription records as a source of medication data for pharmacoepidemiological research. *Therapeutic Advances in Drug Safety* 2018; 9:425-38.

Lee CY, Beanland C, Goeman D, Petrie N, Petrie B, Vise F, Gray J, **Elliott RA.** Improving medication safety for home nursing clients: a prospective observational study of a novel clinical pharmacy service. The Visiting Pharmacist (ViP) study. *Journal of Clinical Pharmacy and Therapeutics* 2018; 43: 813-21.

Meyer C, Renehan E, Batchelor F, Said C, Haines T, **Elliott RA**, Goeman D. 'Falls not a priority': insights on discharging older people, admitted to hospital for a fall, back to the community. *Australian Journal of Primary Health* 2018; 24: 66-73.

Elliott RA. Cognitive screening during pharmacist medication reviews. (letter) *Journal of Pharmacy Practice & Research* 2018; 48: 102

Emergency Medicine

Chen H, **Taylor SE, Harding A,** Taylor DMcd. Accuracy of medication information sources compared to the best possible medication history for patients presenting to the emergency department. *Emerg Med Australas* 2018; 30: 654-661. doi: 10.1111/1742-6723.12965

Schwartz GD, **Harding AH**, Donaldson SR, Greene SL. Modification of Emergency Department electronic prescribing options for outpatient opioid analgesic medications reduces quantities of unused opioids available for diversion in the community. *Emerg Med Australas* 2018; 30: (in press)

Hendarto A, **Harding AM**, Kant JA, Hunter MT, Taylor DMcD. Misappropriation of Medications and Equipment in the Emergency Department. Accepted *Australas Emerg Care*: (in press)

Infectious Diseases

Fang WC, Adler NR, Graudins LV, **Goldblatt C**, Goh MSY, Roberts SK, Trubiano JA, Aung AK. Drug-induced Liver Injury is Frequently Associated with Severe Cutaneous Adverse Drug Reactions: Experience from Two Australian Tertiary Hospitals, *Internal Medicine Journal* 2018;48: (in press)

Khumra S, Mahony A, **Devchand M**, **Walker ST**, **Garrett KM**, Grayson ML, Trubiano JA. Counting the cost of critical antibiotic shortages *Journal of Antimicrobial Chemotherapy* 2018;74(1):273–275, <https://doi.org/10.1093/jac/dky410>

Trubiano J, **Keith C**, **Devchand M**, **Garrett K**. The global implications of the gentamicin histamine contamination – sorting fact from fiction. *Antimicrobial Agents and Chemotherapy* (Early online publication 22/11/18).

Devchand M, Urbancic K, Khumra S, Douglas A, Smibert O, Cohen E, et al. Pathways to Improved Antibiotic Allergy and Antimicrobial Stewardship Practice - The Validation of a Beta-Lactam Antibiotic Allergy Assessment Tool. *The journal of allergy and clinical immunology in practice*. 2018. (in press)

Kwong JC, **Urbancic K**, Trubiano JA. Beyond Penicillin: Rapid Desensitization for Specific Flucloxacillin Hypersensitivity. *Antimicrob Agents Chemother*. 2018 Nov 26;62(12). pii: e01371-18. doi: 10.1128/AAC.01371-18.

Urbancic KF, **Pisasale D**, Wight J, Trubiano JA. Dapsone safety in hematology patients: Pathways to optimizing *Pneumocystis jirovecii* pneumonia prophylaxis in hematology malignancy and transplant recipients. *Transpl Infect Dis*. 2018 Dec;20(6):e12968. doi: 10.1111/tid.12968.

Urbancic KF, Ierino F, Phillips E, Mount PF, Mahony A, Trubiano JA. Taking the challenge: A protocolized approach to optimize *Pneumocystis pneumonia* prophylaxis in renal transplant recipients. *Am J Transplant*. 2018 Feb;18(2):462-466. doi: 10.1111/ajt.14498.

Oncology

Siderov J. Utility of PhaSeal®, a closed system drug transfer device, in facilitating vial sharing to reduce waste and assist in medication cost savings. *J Pharm Pract Res* 2019;doi 10.1002/jppr.1533; (in press)

Rowan G, Carrington C, **Siderov J**. Overview of idelalisib for pharmacists. *J Pharm Pract Res* 2018; 48:543-9. doi:10.1002/jppr.1505

Siderov J, Kelly A, Cancer Therapy Medication Safety Working Group. How is dosage of cancer therapy calculated for adults? In: Cancer Therapy Medication Safety Working Group. COSA guidelines for the safe prescribing, dispensing and administration of systemic cancer therapy. Cancer Council Australia. Available from:

http://wiki.cancer.org.au/australia/COSA:Cancer_chemotherapy_medication_safety_guidelineshttp://wiki.cancer.org.au/australia/COSA:Cancer_chemotherapy_medication_safety_guidelines

Siderov J, Stevenson B, Cancer Therapy Medication Safety Working Group. What safety processes should be followed for preparation and delivery of cancer therapy? In: Cancer Therapy Medication Safety Working Group. COSA guidelines for the safe prescribing, dispensing and administration of systemic cancer therapy. Cancer Council Australia. Available from:

http://wiki.cancer.org.au/australia/COSA:Cancer_chemotherapy_medication_safety_guidelineshttp://wiki.cancer.org.au/australia/COSA:Cancer_chemotherapy_medication_safety_guidelines

Brown-West L, **Siderov J**, Cancer Therapy Medication Safety Working Group. What occupational health and safety precautions should be followed when providing cancer therapy? In: Cancer Therapy Medication Safety Working Group. COSA guidelines for the safe prescribing, dispensing and administration of systemic cancer therapy. Cancer Council Australia. Available from:

http://wiki.cancer.org.au/australia/COSA:Cancer_chemotherapy_medication_safety_guidelines

2. MEDICATION SAFETY AND PHARMACOVIGILANCE

Tan Y, Elliott RA, Richardson B, Tanner FE, Dorevitch MI. An audit of the accuracy of medication information in electronic medical discharge summaries linked to an electronic prescribing system. Health Information Management Journal 2018; 47: 125-31.

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. J Pharm Pract Res 2018; doi:10.1002/jppr.1502 (in press)

Keith C. Automated adverse drug reaction detection. Australian Prescriber. October 2018; 41: 138

Mullen SA, Carney PW, Roten A, **Ching M**, Lightfoot PA, Churilov L, Nair U, Li M, Berkovic SF, Petrou S, Scheffer IE. Precision therapy for epilepsy due to KCNT1 mutations: A randomized trial of oral quinidine. Neurology. 2018 Jan 2;90(1):e67-e72.

Russell N, Hoermann R, Cheung AS, **Ching M**, Zajac JD, Handelsman DJ, Grossmann M. Short-term effects of transdermal estradiol in men undergoing androgen deprivation therapy for prostate cancer: a randomized placebo-controlled trial. Eur J Endocrinol. 2018 May;178(5):565-576. doi: 10.1530/EJE-17-1072.

Myers KA, Davey MJ, **Ching M**, Ellis C, Grinton BE, Roten A, Lightfoot PA, Scheffer IE. Randomized Controlled Trial of Melatonin for Sleep Disturbance in Dravet Syndrome: The DREAMS Study. J Clin Sleep Med. 2018 Oct 15;14(10):1697-1704

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*. 85, 1, p. 202-215 [Epub October 2018]

Theou O, Sluggett JK, Bell JS, **Lalic S**, Cooper T, Robson L, Morley JE, Rockwood K, Visvanathan R. Frailty, hospitalization, and mortality in residential aged care. *Journal of Gerontology*. 2018;73:1090-1096

Lalic S, Gisev N, Bell JS, Korhonen MJ, Ilomäki J. Predictors of persistent prescription opioid analgesic use among people without cancer in Australia. *British Journal of Clinical Pharmacology*. 2018; 84:1267-1278

Abeyaratne C, **Lalic S**, Bell JS, Ilomäki J. Spontaneously reported adverse drug events related to tapentadol and oxycodone/naloxone in Australia. *Therapeutic Advances in Drug Safety*. 2018;9:197-205

Lalic S, Bell S, Gyllensten H, Gisev N, Friberg E, Ilomäki J, Sluggett JK, Mittendorfer-Rutz E, Alexanderson K. Trajectories of sickness absence and disability pension before and after opioid initiation for non-cancer pain: 10-year population-based study. *Pain*. (in press)

Gisev N, Campbell G, **Lalic S**, Larney S, Peacock A, Nielsen S, Pearson S, Degenhardt L. Current Opioid Access, Use, and Problems in Australasian Jurisdictions. *Current Addiction Reports*, 2018;5:464-72

Lalic S, Jokanovic N, Ilomäki 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*. [Epub July 2018]

Van de Vreede M, De Clifford J, **McGrath A**. Staff experience and perceptions of the safety and risks of electronic medication management systems in Victorian public hospitals. *J Pharm Prac Res*. 2018; 48: 18-25. doi.org/10.1002/jppr.1327

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*. Published online 14 May 2018. doi.org/10.1071/AH17119.

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

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. *Ann Pharmacother*. Published online Sept 20, 2018.

Elliott RA, Lee CY, et al. Integration of clinical pharmacists into a home nursing service: a case series. *Journal of Pharmacy Practice & Research* 2018; 48: 564-8.

Conference/Seminar Oral Presentations

AGED CARE

McMaster C, Su E, Liew D, Elliott R, Joules E, Aminian P, Frauman A. Association between drug burden index and geriatric syndromes in a large, single centre general medicine cohort. *5th Australian Deprescribing Network (ADeN) Annual Meeting*, Adelaide, December 2018.

McMaster C, Su E, Liew D, Elliott R, Joules E, Aminian P, Frauman A. Association between drug burden index and geriatric syndromes in a large, single centre general medicine cohort (oral presentation); *Australian Society of Clinical and Experimental Pharmacologists and Toxicologists Annual Scientific Meeting* 2018, November 2018. <https://www.asceptasm.com/wp-content/uploads/2018/11/ASCEPT-2018-Book-of-oral-abstracts.pdf?x82003>

Cross AJ, Le V, George J, Woodward MC, **Elliott RA.** Deprescribing Potentially Inappropriate Medication in Memory Clinic Patients (DePIMM): a role for pharmacists? *5th Australian Deprescribing Network (ADeN) Annual Meeting*, Adelaide, December 2018.

Elliott R. We are all geriatric pharmacists. Australian Clinical Pharmacy Award oration. *The Society of Hospital Pharmacists of Australia 44th National Conference*, Brisbane 2018 (November 22-25).

Lee CY, **Elliott RA**, Kusljic S, *et al.* Potentially inappropriate medications identified in older people receiving home nursing. *51st Australasian Association of Gerontology (AAG) Conference*, Melbourne 2018 (November 21-23)

Cross AJ, George J, Woodward MC, **Elliott RA.** Deprescribing in a memory clinic setting – is it feasible? *51st Australasian Association of Gerontology (AAG) Conference*, Melbourne 2018 (November 21-23)

Major G, Lee CY, **Elliott RA**, *et al.* Attitudes towards deprescribing among older people receiving home nursing support with medication management: a cross-sectional survey. *National Medicines Symposium, NPS MedicineWise*, Canberra 2018 (May)

Cross A, **Elliott R.** Deprescribing potentially inappropriate medicines in patient attending memory clinics (DePIMM). *VicTAG/Safer Care Victoria Medicines Roundtable*, Melbourne 2018 (May 7).

EMERGENCY MEDICINE

Taylor SE. 'Emergency Department screening tools to assist pharmacists targeting patients at risk for medication related problems' *Medicines Management 2018, 44th SHPA National conference*, Brisbane, November 2018 [Time to Shine 3 minute presentation and Contributed oral presentation]

INFECTIOUS DISEASES

Khumra S. Mahony A, **Urbancic K**, Rawlins M, Bergen P, **Elliott R**. Exploring the confidence and educational needs of pharmacists in reviewing antimicrobials: a survey. Medicines Management 2018 Conference, Brisbane, November 2018

Misha Devchand. The '5 Moments' of Antimicrobial stewardship (AMS) in the intensive care unit (ICU). Australian Society for Antimicrobials – Antimicrobials Conference, Brisbane, November 2018

Misha Devchand. The validation of a clinical antibiotic allergy assessment tool to aid accurate evaluation, phenotyping and management of hospitalized patients with a reported beta-lactam allergy. ASID Annual Scientific Conference, Brisbane, May 2018

Misha Devchand. Validation of a beta-lactam allergy assessment tool to aid accurate phenotyping and management of allergies. Medicines Management 2018 Conference. Brisbane, November 2018

ONCOLOGY

Siderov J. Utility of closed system transfer devices to protect healthcare workers & decrease waste. Asia Pacific Oncology Pharmacy Congress, Singapore, September 2018

Siderov J. VAD - the pharmacist's role. COSA Cancer Pharmacists Group Clinical Development Workshop, COSA ASM November 2018

Siderov J. Hazardous drug handling - updates and controversies. COSA Cancer Pharmacists Group Clinical Development Workshop, COSA ASM November 2018

Siderov J. Chemotherapy governance. COSA Cancer Pharmacists Group Clinical Development Workshop, COSA ASM November 2018

HEALTH SYSTEM RESEARCH

Elliott R, Taylor S, Koo M, **Fodera M**, Nguyen A, Loh G, Liu E, Nguyen B, Vong V. Medication histories from the cloud, but beware of the pitfalls. Medicines Management 2018, 44th SHPA National conference, Brisbane, November 2018 [Time to Shine 3 minute presentation and Contributed oral presentation]

Gellatly R, **Walker S**, Mak V, Brock T. Development of a standardised patient-centred care model for teaching second year pharmacy students. Life Long Learning in Pharmacy 2018, Brisbane, July.

Conference/Seminar Posters

AGED CARE

Kalogianis MJ, Elliott RA. Antipsychotic consumer medicines information for patients with dementia or delirium. *51st Australasian Association of Gerontology (AAG) Conference*, Melbourne 2018 (November 21-23)

Bellamy C, Lee CY, **Elliott R**, et al. Clinical pharmacist integration in home-nursing teams to reduce medication risk. *Primary Health Care Research Conference*, Melbourne 2018 (August 1-3).

EMERGENCY MEDICINE

Pollack K, Griffith N, **Balassone J, Bui C, Taylor SE**, Taylor DMcD. 'Hyperkalaemia in the emergency department: epidemiology, management and monitoring of treatment outcomes' Austin Health Research Fest, October 2018

INFECTIOUS DISEASES

Sharmila Khumra. The impact of antibiotic shortages on usage and costs at a large tertiary hospital. Australian Society for Infectious Diseases (ASID) annual scientific meeting, Brisbane, May 2018

Sharmila Khumra. Counting the cost of critical antibiotic shortages, Austin Health, ResearchFest, October 2018

Walker S, Urbancic K, Khumra K, Devchand M, Mahony A, Grayson M, Trubiano J. Antimicrobial prescribing in spinal cord injury patients-opportunities for antimicrobial stewardship. Australasian Society for Infectious Diseases, Queensland, May 2018.

ONCOLOGY

Meher-Homji Z, Grigg AP, Tam CS, **Siderov J**, Seymour JF, Slavin MA, Trubiano JA. High prevalence of antibiotic allergies in Cladribine-treated hairy cell leukaemia patients- lessons for immunopathogenesis and prescribing. ASID 2019 abstract

PHARMACOVIGILANCE

McMaster C, Liew D, Keith C, Aminian P, Garrett K, Frauman A. Enhanced detection of adverse drug reactions in hospital patients using ICD-10 codes and machine learning models (poster presentation); National Medicines Symposium 2018, May 2018.

<https://nms2018.paperlessevents.com.au/zzz/posters/mcmaster-enhancedd-1678/html/ppt.html>

Keith C, McLachlan G, Aminian P. Special handling required! Implementing a guideline for hazardous medicine handling at a major teaching hospital. Austin Health ResearchFest October 2018

Keith C, McGrath A, McLachlan G, Dang, T. Imported medicines: a pre-emptive approach to procurement, striving to enhance point-of-care medication safety. Austin Health ResearchFest, October 2018

Keith C, Booth J, Aminian P. Finding the needles in a haystack – automated detection of Adverse Drug Reactions through ICD-10 coding. Austin Health ResearchFest, October 2018



Grants and awards

AGED CARE

Rohan Elliott. Australian Clinical Pharmacy Award 2018, Society of Hospital Pharmacists of Australia. Awarded for clinical practice, teaching and research in Aged Care.

INFECTIOUS DISEASES

VicTAG Research Grant (2018) - The use of a beta-lactam antibiotic allergy assessment tool to improve medication safety

ONCOLOGY

Jim Siderov. Evaluation of surface contamination of cytotoxic chemotherapy in Pharmacy Departments and patient administration areas in major teaching hospitals in Australia. Expected completion 2019. Research funding through education grant from BD (\$35K)

QUALITY USE OF MEDICINES

Vasilios Sitoropoulos. Epclusa for Hepatitis C infection – a health economic analysis. Best Intern Poster Presentation, Intern Foundation Program, Monash University, November 2018.

Research degree involvement

PHD CANDIDATES

Phung To.

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

Karen Urbancic.

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

Samata Lalic.

Harms associated with prescription opioid analgesics: prevalence and factors. Monash University. Australian Government Research Training Program Scholarship (full-time, 2016 -)

Tim Tran.

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

MASTER OF PHARMACY CANDIDATE

Sharmila Melvani.

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

MASTER OF CLINICAL PHARMACY CANDIDATES

Stephen Walker

Evaluation of nurse initiated antimicrobials in febrile neutropenia, Monash University (part-time, 2017-2018)

Belinda Richardson

Prevalence and nature of medication errors in surgical and medical patients admitted through the emergency department, Monash University (part-time, 2017-2018)

Misha Devchand

Evaluation of a pharmacist led antimicrobial allergy de-labelling service, Monash University (part-time, 2017-2018)

SUPERVISION

Rohan Elliott

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

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

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

Samanta Lalic. Harms associated with prescription opioid analgesics: prevalence and factors. (PhD panel member 2016 -)

Simone Taylor

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

Belinda Richardson. Prevalence and nature of medication errors in surgical and medical patients admitted through the emergency department, *M Clin Pharm*, Monash University (part-time, 2017-2018)

Stephen Louey (Monash Health). Impact of ED pharmacists assisting general practitioners to maintain updated medication regimen records for their patients. *M Clin Pharm* research project panel member, 2017-2018.

Gail Edwards (Alfred Health) Evaluation of pharmacological management of patients presenting to ED with behaviours of concern. *M Clin Pharm* research project panel member, 2017-2018.

Intern Foundation Program Projects

Kyle Booth

The epidemiology and treatment outcomes of hepatitis C patients treated with sofosbuvir/velpatasvir (Epclusa®): a retrospective effectiveness study

Kyle Booth, Vasilios Sotiropoulos, Parnaz Aminian, Simone Taylor

- Approximately two thirds of our cohort achieved a SVR to a single course of Epclusa® treatment, which is lower than that achieved in controlled efficacy studies. More effectiveness studies are needed to establish the best ways to engage this challenging group of patients to optimise treatment outcomes and identify the risks of viral resistance recurring.

Yvonne Boutros

An evaluation of how residential care facilities use hospital pharmacy-provided interim medication administration charts. Yvonne Boutros, Rohan Elliott, Tim Tran, Simone Taylor

- All RACFs wanted to continue to receive the IRCMACs
- About a quarter of patients were still using the chart beyond 72 hours post discharge
- 85.4% of GP callouts to facilities using our IRCMAC were made by regular General Practitioners rather than Locum practitioners.

Jayne Droney

Venous Thromboembolism Events Secondary to Combined Oral Contraceptive Pill Use Presenting to a Tertiary Referral Hospital: A Case Series. Jayne Droney, Claire Keith

- The fact that thrombotic events secondary to COCP use are still occurring in 2017, despite knowledge of concomitant risk factors, may suggest that a review of Australian prescribing guidelines and raising awareness in the general community is overdue.
- This case series may be a useful prompt to clinicians about the occurrence of VTE related to COCP use in the contemporary 2018 setting. It could be used as a basis for future hospital audit projects, or primary care practice improvement around contraception prescribing.

James Ford

Evaluation of Metabolic Screening in Patients Prescribed Antipsychotics Admitted to a Long-term Secure Mental Health Unit. James Ford, Jess Knight, Vanessa Kleijn, Simone Taylor

- Concordance with the metabolic screening protocol was poor, with most patients either not receiving a metabolic screen as an inpatient, or not receiving the recommended follow up. Interventions to improve completion and documentation of metabolic screening are required.

Connor Palmer

Lithium monitoring in the hospital setting: a retrospective review

Connor Palmer, Vanessa Kleijn, Simone Taylor

- This pilot study indicated deficiencies in recommended lithium monitoring, particularly around the timing of lithium serum levels in relation to the last dose.

Tina Pham

Evaluation of the timing of pre-medication doses prior to chemotherapy and its impact on the occurrence of adverse effects. Tina Pham, Jim Siderov

- This pilot study indicated interventions may be required to improve timeliness of premedication administration prior to administration of chemotherapy.

Vasilios Sotiropoulos

The costs of treating Hepatitis C with Epclusa (sofosbuvir/velpatasvir) in a tertiary Victorian hospital: a retrospective cohort cost-analysis. Vasilios Sotiropoulos, Parnaz Aminian, Simone Taylor

- Based on our data, the average cost to treat a non-cirrhotic CHCV patient with Epclusa through the state public health system is ~\$67K
- There appears to be financial interest in treating CHCV patients with Epclusa, however a pharmaco-economic study following this cost-analysis is needed to evaluate 'real-world' cost-effectiveness

Zulal Uzunbay

Accuracy of labels on community pharmacy prepared dose administration aids (DAA) labels

Zulal Uzunbay, Rohan Elliott, Simone Taylor, Emily Joules

- Overall, the incidence of labelling errors was high. Further research is required to confirm these findings and to improve current guidelines such as outlining correct procedures for the training of packing staff and also making them more specific to current packing systems. These results may be a starting point for DAA software vendors to improve and update their software to meet the labelling requirements specified in current guidelines.

Recently completed and ongoing projects

Cross A, **Elliott R**, George J, Woodward M. Deprescribing Potentially Inappropriate Medication in Memory clinic patients (DePIMM)

Elliott R, Lee CY, Bellamy C, et al Timely Enhanced Access to Medication Management (TEAMM) Pharmacist Project. Eastern Melbourne Primary Health Network.

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Research Collaborators

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- Aged Care
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- Liver Transplant Unit
- Oncology
- Orthopaedics
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UNIVERSITIES

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

AUSTRALIAN HOSPITALS

- Barwon Health
- Western Health
- The Northern Hospital
- Monash Medical Centre - Clayton
- Dandenong Hospital
- Casey Hospital
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