

Pharmacy RESEARCH REVIEW™



Making Education Easy

Issue 77 – 2020

In this issue:

- Health needs assessment in a regional Australian community
- Effectiveness of telehealth medication reviews
- A specialised 'COVID pharmacist' role in an Australian hospital
- Can children swallow tablets?
- Community pharmacists' perspectives on unlicensed medicines
- Implementation of mouth rinsing after use of inhaled corticosteroids
- ADR reporting for complementary medicines
- Patients' awareness of the need to withhold 'at-risk' medicines during acute illness
- Reducing discharge prescribing of opioids for surgical patients
- Medication omission rates in residential aged care homes in NZ

Abbreviations used in this issue

ACE = angiotensin-converting enzyme
ADR = adverse drug reaction
NSAID = non-steroidal anti-inflammatory drug

Welcome to the latest issue of Pharmacy Research Review.

In this issue, Australian researchers use a PRECEDE-PROCEED model to examine health needs in a rural community to guide development of tailored community pharmacy interventions, a scoping review supports the feasibility of telehealth medication reviews, and an interesting commentary describes the establishment of a full-time specialised COVID pharmacist role in an Australian hospital. A UK feasibility study investigates whether children of different ages can swallow tablets of different sizes, an Australian study reminds us of the importance of counselling patients about mouth rinsing after using inhaled corticosteroids, and an interesting survey in NZ evaluates patients' awareness of withholding certain 'at risk' medicines during acute illness to prevent acute kidney injury.

We hope you find these and the other selected studies interesting, and welcome your feedback.

Kind regards,

Dr Chloë Campbell

chloecampbell@researchreview.co.nz

Health needs assessment in a regional community pharmacy using the PRECEDE-PROCEED model

Authors: Handyside L et al.

Summary: A PRECEDE-PROCEED model (PPM) was used to perform a health needs assessment in a regional Australian community to guide pharmacy service development. Data were collected by surveying pharmacy customers, interviewing a community pharmacist, and by searching online databases for regional health and social information. The community survey response rate was 44.8%. Of 113 participants, 71.7% were female and 89.4% were town dwellers (6.4% of the town's population). Depression and/or anxiety were the most commonly self-reported conditions (44.2%), predominantly in women (72%); 35.5% of respondents felt that mental illness impacted local health and wellbeing. Depression and/or anxiety was associated with delays and/or avoidance of prescription medicine due to cost, poor self-rated health, worsening health in the past year, seeking advice from a pharmacist, and need for emergency care in the past year. The lack of a local general practitioner, social isolation, and environmental issues also affected local health and wellbeing.

Comment: Health service planners desire tailoring of services to best meet their local population needs. To help with this in a community pharmacy setting, these Australian researchers applied the PRECEDE phase of the PPM (the PROCEED phase is later where health interventions identified as meeting population needs are implemented and evaluated). It would be interesting to see if a tool based on this approach could be developed to enable pharmacies to run this type of model themselves to assess health needs locally, and also to reassess intermittently.

Reference: *Res Social Adm Pharm* 2020; published online Sep 3

[Abstract](#)

SPIRIVA®
RESPIMAT®
(tiotropium)



**FULLY FUNDED
with NO Special Authority***

*Pharmaceutical Schedule, www.pharmac.govt.nz. Prescription must be endorsed that the patient has been diagnosed as having COPD using spirometry **PRESCRIPTION MEDICINE**. Spirova® Respimat® is indicated for long term, once-daily maintenance treatment in patients with COPD (including chronic bronchitis and emphysema), to reduce airflow obstruction, to improve health-related quality of life and to reduce associated dyspnoea. Before prescribing please review the data sheet for information on dosage, contraindications, precautions, interactions and adverse effects on the Medsafe website: www.medsafe.govt.nz Boehringer Ingelheim (NZ) Ltd, Auckland PC-NZ-100079 TAPS PP5378

For more information, please go to <http://www.medsafe.govt.nz>

www.researchreview.co.nz

a RESEARCH REVIEW™ publication



A scoping review of the use and impact of telehealth medication reviews

Authors: Hanjani LS et al.

Summary: This scoping review evaluated the use and impact of telehealth-facilitated medication reviews. A search of Pubmed, Embase, Cochrane Library and CINAHL databases identified 29 studies that evaluated telehealth medication reviews. These included medication order reviews, medication management, geriatric services and antimicrobial stewardship programmes, and were mostly delivered to patients in outpatient or hospital settings. Reported outcomes included process evaluation, medication use, costs, clinical outcomes, and healthcare use. Telehealth medication reviews were found to have a positive impact on clinical outcomes (e.g. reduction in glycated haemoglobin), medication use (e.g. reduction in antibiotic use) and costs (e.g. savings due to reduced travel). However, current evidence may not be sufficient to reliably inform practice and policy of telehealth-facilitated medication reviews.

Comment: Telehealth has played a significant role in the response to COVID-19, and before that has been considered to have important potential in the provision of health services to rural and remote areas. The challenge for pharmacy practice, like for other health professionals, is the evidence to understand how the modality may impact on effectiveness and what might need to be done differently.

Reference: *Res Social Adm Pharm* 2020;16(8):1140-53

[Abstract](#)

The role of a coronavirus disease 2019 pharmacist: An Australian perspective

Authors: Nguy J et al.

Summary: This commentary detailed the response of an Australian hospital pharmacy to the COVID-19 pandemic, and described the unique contributions made by a specialised 'COVID pharmacist'. Use of the novel COVID pharmacist helped alleviate the pressure of doctor shortages, reduced healthcare worker exposure to infected patients, and contributed to therapeutic decisions made during the pandemic.

Comment: Though we have not seen the impacts on our health service that have been experienced elsewhere in the world, the NZ COVID-19 response through lockdown recognised supply and optimisation of medicines use as an essential service both in primary and secondary care. This commentary article describes the establishment of a full-time COVID pharmacist role in an Australian hospital, giving insight into this novel role.

Reference: *Int J Clin Pharm* 2020;42:1379-84

[Abstract](#)

Can children swallow tablets? Outcome data from a feasibility study to assess the acceptability of different-sized placebo tablets in children (creating acceptable tablets (CAT))

Authors: Bracken L et al.

Summary: This UK feasibility study investigated the acceptability of different-sized placebo tablets in children aged 4–12 years. In total, 55 children were asked to swallow 3 placebo tablets: 6mm, 8mm and 10mm, from smallest to largest. They then completed a questionnaire about the overall acceptability of the tablets; including how easy they were to swallow, what they tasted like, and how much water was needed. For analysis, participants were stratified into younger (4–8 years) and older (9–12 years) age groups. 77% of the younger age-group had never taken a tablet before, but 84% of the older children had. The younger children found the larger tablets easier to swallow, but the older children found little difference between tablet sizes. The younger children needed more water to swallow each tablet size compared with the older children, and an increasing volume of water was needed as tablet size increased. Both age groups rated taste highly, and both groups found the 8mm tablets to be the most acceptable size.

Comment: Liquid medicines have long been considered the most appropriate oral dosage form for children yet these authors point out that support is increasing for solid dosage forms to be used more frequently due to their better stability profile, suitability for coating to mask taste, and fewer excipients. The researchers recognised the low numbers involved in their study and discussed the challenges of conducting this type of research in children (e.g. the children's understanding of the questions they were asked by the researchers).

Reference: *BMJ Open* 2020;10:e036508

[Abstract](#)

Insulin initiation, titration and escalation: a practical guide

E-Learning Module for pharmacists

PSNZ CPD-accredited E-Learning Module is now available to complete.

This Research Review E-Learning Module is intended for New Zealand pharmacists, and provides practical advice for the initiation, titration and escalation of insulin therapy in primary care. It is based on the Research Review Speaker Series publication 'Insulin initiation, titration and escalation: a practical guide for busy clinicians in primary care', which reports a webinar given by Dr Carl Peters.

PRESENTATION SUMMARY

This E-Learning Module covers:

- Appropriate HbA1c targets for different patient populations
- Tips for successful initiation of insulin
- Advice for titrating basal insulin to target
- When to intensify insulin therapy
- Advice for titrating meal-time insulins

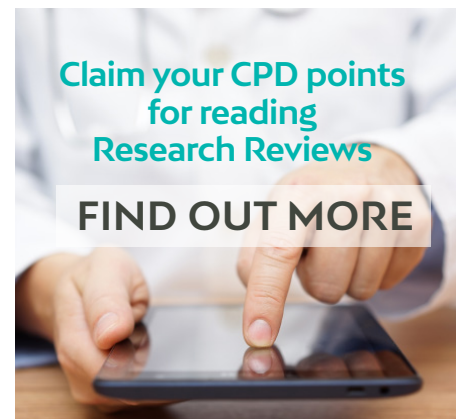


COMPLETE THIS MODULE
AT NO COST



Claim your CPD points
for reading
Research Reviews

FIND OUT MORE





Unlicensed “special” medicines: Understanding the community pharmacist perspective

Authors: Wale A et al.

Summary: This study explored the views and experiences of community pharmacy staff in Wales regarding access to and supply of unlicensed ‘special’ medicines to patients. Six pharmacists and pharmacy technicians working at a small chain of community pharmacies in Wales were interviewed about their personal experiences and perceptions of the processes involved in accessing and supplying unlicensed ‘special’ medicines. Analysis of the transcribed interviews found 3 main themes: staff felt that patients receiving unlicensed medicines needed to take additional responsibility compared with patients on licensed medication; staff had varying levels of confidence in their role of accessing and supplying unlicensed ‘special’ medicines; issues with the accessibility and availability of the medicines sometimes affected continuity of supply.

Comment: This study is set in the UK, so some terminology and contextual details are different (here we tend to refer to medicines that have not been through the Medsafe approval process as ‘Section 29 medicines’). Despite the differences, the themes identified in the study do resonate with the NZ experience. Attention to this area is needed given the general sense that the number of unapproved medicines seems to be increasing here, especially with the COVID-19 situation.

Reference: *Integr Pharm Res Pract* 2020;9:93-104

[Abstract](#)



PHARMACY GUILD
OF NEW ZEALAND

**Accreditation number: 2016/16,
Expiry October 2022 - This Review has
been endorsed by PSNZ ENHANCE for
30 minutes of group 1 learning and
pharmacists may allocate 0.5 group 1
points after reading this review.**

Group 1 points may be allocated at 1 point per hour for any further reading of the full research papers (via the links).



FOR MORE INFORMATION [CLICK HERE](#)

Implementation of mouth rinsing after use of inhaled corticosteroids in Australia

Authors: Johnstone LK et al.

Summary: This Australian study evaluated whether patients rinse their mouths after using inhaled corticosteroids, and their understanding of the reasoning behind the recommendation. 380 individuals aged ≥18 years with asthma and/or chronic obstructive pulmonary disease who were currently using an inhaled corticosteroid completed an online survey via Facebook. 30.5% of them reported suboptimal mouth rinsing after using inhaled corticosteroids. Receiving advice on mouth rinsing from a healthcare professional improved rinsing rates. Most (90.0%) patients were aware rinsing could reduce oropharyngeal adverse effects, but only 5.5% were aware of its potential to reduce systemic adverse effects. Patients were more likely to report a positive impact from rinsing if they had experienced oral candidiasis or sore mouth/throat, compared to cough or hoarse voice.

Comment: I was surprised to note the rate of participants experiencing oropharyngeal adverse effects in this study was 70%. The authors noted that other studies have reported an incidence of 5–10%. It may be that people who had experienced an adverse effect were more likely to participate in this particular study, but it is a rather striking difference. I also found it noteworthy that paid Facebook advertising was used to aid recruitment to this study.

Reference: *Int J Clin Pharm* 2020; published online Oct 8

[Abstract](#)

Community pharmacists’ views and experiences with ADR reporting for complementary medicines

Authors: Barnes J & Butler R

Summary: This qualitative study explored NZ community pharmacists’ views and experiences with adverse drug reaction (ADR) reporting for complementary medicines. 27 practising community pharmacists were interviewed. Participants were familiar with systems for reporting ADRs, believed that reporting ADRs for complementary medicines was important, and that pharmacists should contribute. However, few submitted reports of complementary medicine ADRs and none encouraged patients/consumers to do so. They said this was because patients had not reported any ADRs associated with complementary medicines to them, but said they would report serious ADRs. Deterrents to reporting included time pressure, lack of certainty around causality, and lack of knowledge about how to report ADRs related to complementary medicines.

Comment: Following on from a couple of papers about complementary and alternative medicines (CAMs) and pharmacy practice included in our previous issue, this NZ study explores the concept of pharmacovigilance for CAMs. It can serve as a reminder to all health practitioners that the NZ Centre for Adverse Reactions to Medicines (CARM) is open to receiving reports about adverse reactions with CAMs and, like any ADR reporting, doing so helps build our knowledge and supports safe use of these medicines.

Reference: *Drug Saf* 2020;43(11):1157-70

[Abstract](#)

New Zealand Research Review subscribers can claim CPD/CME points for time spent reading our reviews from a wide range of local medical and nursing colleges. Find out more on our [CPD page](#).

Get your own copy of
**PHARMACY
RESEARCH REVIEW**

Become one of Research
Review’s 32,000 NZ members

SIMPLY CLICK

I am a Health Professional
to send us an e-mail and we’ll do the rest





Preventing acute kidney injury: Assessing awareness to temporarily discontinue 'at-risk' medicines during acute illness in a New Zealand cohort

Authors: Vicary D et al.

Summary: This NZ study evaluated patients' awareness of temporarily withholding certain 'at risk' medicines during acute illness to prevent acute kidney injury. 130 adults taking long-term oral medicines for chronic health conditions completed a 4-question survey at 6 Hawke's Bay community pharmacies in 2017–2018. 17 patients (13%) recalled receiving counselling from a health professional on which medicines to stop during excessive vomiting or diarrhoea, but only 3 would consider stopping their medicines if needed. 17 of 95 (18%) patients aged ≥65 years were prescribed both an NSAID and either an ACE inhibitor or angiotensin II receptor blocker. Of these, 5 recalled being told to withhold these medicines in the event of acute illness. Three participants were taking a triple whammy combination, but none of them recalled being advised to stop taking them if unwell.

Comment: Another NZ study, this time looking at patient awareness around temporarily discontinuing 'at-risk' medicines when they are acutely unwell with conditions that might lead to dehydration. Set in Hawke's Bay, the results indicate an opportunity for strengthened patient education by prescribers and pharmacists alike. Though it is interesting to note that even in those who recalled receiving pre-emptive advice about this, many would not act on it before receiving additional instructions from a health professional at the time of the illness.

Reference: *NZ Med J* 2020;133(1519):12-23

[Abstract](#)

Educating junior doctors and pharmacists to reduce discharge prescribing of opioids for surgical patients

Authors: Hopkins RE et al.

Summary: This cluster-randomised trial evaluated whether educating junior doctors and hospital pharmacists about analgesic prescribing reduced discharge prescribing of opioids after surgical admissions. 13 surgical units at the Alfred Hospital in Melbourne were randomised to the intervention or controls arms. In the intervention arm, interns, residents, and clinical pharmacists attended education sessions about appropriate analgesic prescribing for patients in hospital surgical units. The primary end-point was the number of opioid-naïve patients discharged from surgical units after a stay of at least 24h who were prescribed slow-release opioids. A total of 1679 patients were included in the analysis. After adjusting for confounding factors, patients in the intervention group were less likely to be prescribed slow-release opioids at discharge than patients in the control group (adjusted odds ratio [aOR], 0.52; 95% CI 0.35–0.77) and were more likely to be discharged without any prescribed opioids (aOR, 1.69; 95% CI 1.24–2.30).

Comment: This Australian study describes an educational intervention on managing acute pain post-surgery and is the first time I have come across the term analgesic stewardship pharmacist. The authors commented about sustainability, pointing out that with a rotating workforce this type of educational intervention needs to be regularly repeated to maintain the effects. As a solution, the authors suggested the possibility of online delivery as part of induction to the surgical rotation.

Reference: *Med J Aust* 2020; published online Oct 10

[Abstract](#)

[CLICK HERE](#)

to read previous issues of Pharmacy Research Review

Medication omission rates in New Zealand residential aged care homes

Authors: Garratt SM et al.

Summary: This retrospective study quantified the incidence, prevalence, and types of medication omissions in Residential Aged Care (RAC) homes in NZ. Medication charts for 11,015 residents from 374 RAC homes were reviewed. A mean 3.59 medication doses were omitted per 100 dispensed doses per resident; 73% of residents had ≥1 dose omission. The most common omission categories used were 'not-administered' (49.9%) and 'refused' (34.6%); 48% of dose omissions were recorded without a reason given. Laxatives and analgesics were the most commonly omitted medications.

Comment: Many pharmacists working in pharmacies that provide services to RAC homes will be familiar with Medi-Map (the authors mention that this medicine management software is in use in 70% of rest homes in NZ). This study used de-identified data from Medi-Map to undertake their nationwide analysis. The authors discuss in detail observations regarding categories of omission and documentation practices; and, interestingly, signal an intention to publish a subsequent paper describing the omission of specific medications suggesting it is of concern from a quality perspective.

Reference: *BMC Geriatr* 2020;20(1):276

[Abstract](#)

Independent commentary by Dr Chloë Campbell



Chloë has worked in both hospital and community pharmacy in New Zealand and the United Kingdom since graduating from the University of Otago School of Pharmacy in 1995. She has recently completed a PhD investigating the medicines information needs of general practitioners and the information support roles of pharmacists in New Zealand. Chloë was co-convenor of the Medicines Information and Clinical Pharmacy Special Interest Group of the New Zealand Hospital Pharmacists Association for 7 years. She was awarded a Fellowship of the NZHPA in 2017. She is currently working as Professional Practice Pharmacist at the Pharmaceutical Society of New Zealand and is a member of the Editorial Advisory Board of the New Zealand Formulary. Chloë has a strong interest in the interface between research and practice.

Independent Content: The selection of articles and writing of summaries and commentary in this publication is completely independent of the advertisers/sponsors and their products.

Privacy Policy: Research Review will record your email details on a secure database and will not release them to anyone without your prior approval. Research Review and you have the right to inspect, update or delete your details at any time.

Disclaimer: This publication is not intended as a replacement for regular medical education but to assist in the process. The reviews are a summarised interpretation of the published study and reflect the opinion of the writer rather than those of the research group or scientific journal. It is suggested readers review the full trial data before forming a final conclusion on its merits.

Research Review publications are intended for New Zealand health professionals.

- Med student
- RMO/Trainee
- GP
- Specialist
- All of the above

At all stages of your medical career, the NZMA is your voice, advocating on the issues that affect you, your colleagues and the health of all New Zealanders. A strong membership means we can do more.

Join us today.
www.nzma.org.nz

