

WESTERN SYDNEY GENERAL PRACTICE PHARMACIST PROGRAM

Integrating pharmacists into the patient care team | September 2018



ACKNOWLEDGEMENT

WentWest, the Western Sydney Primary Health Network, would like to acknowledge the work of the UTS Graduate School of Health and the GP Associations of the Hills, Mount Druitt and Blacktown as well as Perry Pharmacy Services for their contribution to the rollout and evaluation of the projects outlined in this document.

WentWest would also like to thank the following groups for their contribution:

- › The General Practice Pharmacists involved in the project
- › The General Practices involved in the project
- › The Community Pharmacies involved in the minor ailments pilot
- › The HealthPathways team who developed the pathways for the minor ailments pilot
- › Western Sydney Local Health District (WSLHD) for their support as part of the Western Sydney Integrated Care Program



EXECUTIVE SUMMARY

The role of Primary Care and indeed General Practice in Australia is evolving rapidly in some areas and more gradually in others. The increasing corporatisation of the general practice workforce, advances in digital technology and changing consumer and government expectations of health care more broadly, are shaping the future of the profession, including how it engages with the community and the rest of the health system. One area that has seen rapid and positive change in the past few years is the role of team-based care, and the benefits that other health professionals can bring to the collective care of a patient. As one of the key building blocks in Bodenheimer's 10 building blocks of high performing primary care, team-based care has been embraced by many in the health care community.

WentWest as the Western Sydney Primary Health Network has in recent years championed the concept of team-based care through the support of programs such as Pharmacists in General Practice. The Western Sydney General Practice Pharmacist Program was launched in 2016 and has shown significant outcomes relating to the reduction of drug related problems and patient understanding of their medication regimen. The Program has been well received by pharmacists and general practitioners alike, with high acceptance rates reported by participants. As a result, WentWest has expanded the program to include a number of other projects including a model for the Western Sydney Integrated Care Program, a Cluster Controlled Trial for General Practice Pharmacists supporting Integrated Care, a General Practice Pharmacist Training Program and a Minor Ailments Randomised Controlled Trial study. In these projects and the rollout of Health Care Homes and My Health Record WentWest has also engaged and seeks further engagement with Community Pharmacy and part of the so-called medical neighbourhood.

Outcomes of these projects and research will further direct the future of the Program with the aim to expand the model more broadly across Primary Care, beyond the current Integrated Care and Health Care Homes programs. It is hoped that this will take the benefits realised to date to scale and ultimately lead to improved health and wellbeing for the residents of western Sydney and beyond.

1. INTRODUCTION

It is predicted that by 2050 the proportion of the Australian population aged 65-84 will double and that the proportion of people aged over 85 years will quadruple.¹ With this increase in age, there is also an increase in chronic medical conditions and associated medication use.²

As the number of medications patients are taking increases, there is a corresponding increase in drug-related problems (DRPs).³ DRPs cause a significant number of Australian hospital admissions.^{4, 5} Better medication management in the primary care setting, including appropriate use of medication and medication adherence, may help reduce these admissions. Pharmacists have extensive pharmacotherapy knowledge and expertise and are therefore a logical addition to the general practice team to assist with medication management.^{6, 7}

At an international level, there is evidence to support the benefits to patients with the addition of pharmacists to general practice teams.⁸ There have been few studies examining general practice pharmacists' interventions previously conducted in the Australian general practice setting. These studies have included small quantitative studies examining the impact of general practice pharmacists and multiple qualitative investigations relating to stakeholders' views on collaboration with general practice pharmacists.^{6, 7, 9, 10}

In 2015, following a period of development with WentWest and University of Technology Sydney (UTS), the Australian Medical Association (AMA) developed a proposal to the Commonwealth Government of Australia to establish a funding program to integrate pharmacists within Australian general practices.¹¹ The Pharmaceutical Society of Australia, the peak body for registered pharmacists in Australia endorsed the AMA proposal, demonstrating support for the intervention from both pharmacists and general practitioners (GPs).¹² Despite this support, Australian pharmacists are not routinely included as general practice team members and there is no system level funding available to support this innovative practice.

The integration of pharmacists into the general practice setting strongly aligns with the principles of Patient Centred Medical Home (PCMH). PCMH is rapidly evolving to be the future of primary health care internationally. The principles that underpin PCMH are universally relevant and fundamental to strong primary care, that is care that is patient centered, comprehensive, coordinated and committed to the highest levels of quality and safety. The PCMH model that WentWest has adopted is well documented and researched, and advocates enhanced patient access to comprehensive, coordinated, evidence-based, interdisciplinary care that is supported by the 10 building blocks of high performing primary care (Bodenheimer Model)¹³. The model is illustrated in figure 1.



Figure 1: 10 Building Blocks of High Performing Primary Care¹³

2. THE GPP PROGRAM

WentWest established the Western Sydney General Practice Pharmacist Program to trial the implementation of a collaborative, patient-centred primary care model. This project involved the integration of pharmacists into general practice sites in western Sydney to work collaboratively as part of the patient care team. The project commenced in March 2016 and is ongoing. The project was designed in partnership with UTS who continue to provide academic support to the program as the evidence base builds.

The project was seen as a component of the implementation of the PCMH principles. It continues to be supported by the Western Sydney Local Health District (WSLHD) as part of the Integrated Care(IC) Initiative.

WHAT IS A GENERAL PRACTICE PHARMACIST

A General Practice Pharmacist (GPP) is a non-dispensing pharmacist who delivers clinical and education services to patients within the general practice setting. The GPP is integrated as a member of the patient care team to foster true team-based care and support the Patient Centred Medical Home principles. Their role complements the dispensing role undertaken by Community Pharmacists but can bring core pharmacist skills into the general practice setting. The role of a GPP is diverse and can be tailored to meet the needs of the patient to ensure they experience effective team-based care in the primary care setting being at GP practices, the patient's home or in the community.

PRINCIPLES OF THE GPP PROGRAM

1. Patient-centred, not system centred approach to care, addressing the Quadruple Aim (Figure 2),
2. Establish strong relationships between members of the patient care team to capitalise on the core skills of pharmacists as a truly integrated member of the patient care team,
3. Consistent, systematic application of processes and
4. Utilises data to drive quality improvements.

THE QUADRUPLE AIM OF EFFECTIVE PRIMARY CARE

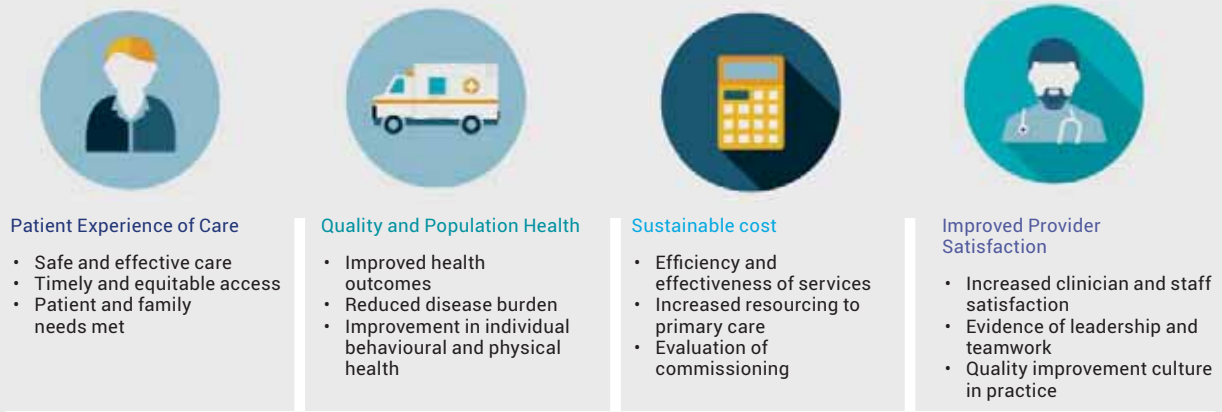


Figure 2: Quadruple Aim

OBJECTIVES OF THE GPP PROGRAM

The GPP has been implemented with the aim of improving patient care and outcomes across western Sydney. Specific outcomes include:

- › Reducing adverse drug events,
- › Reducing polypharmacy,
- › Supporting the provision of care coordination and patient education,
- › Supporting the implementation of Integrated Care and PCMH initiatives and
- › Fostering a true team-based approach to patient care in line with PCMH principles.

ROLE OF THE GPP

The role of the GPP is diverse and may include:

- › Medication review and reconciliation,
- › Medication optimisation including reduction in polypharmacy,
- › Patient (including family where appropriate) education regarding existing and new medication regimens,
- › Ensuring medication is taken correctly,
- › Working as a collaborative member of the patient's care team,
- › Involvement in case conferences,
- › Providing practice and GP updates on PBS changes, newly listed medications and drug interactions,
- › Enhanced integration and collaboration with community pharmacists,
- › Enhanced integration and collaboration with hospital pharmacists,
- › Patient review post hospital discharge,
- › Identification of patients that may benefit from GPP intervention and
- › Assist in chronic disease self-management.

THE PHARMACIST IN GENERAL PRACTICE MODEL

This is the overarching model which governs all the General Practice Pharmacist initiatives across the region.

1. Patient identification

- › Practice cohort filtering used to identify suitable patients based on eligibility criteria
- › Patients booked in to see GPP in practice by practice staff
- › Patient identified by GP due to new prescription/device requiring education or monitoring

2. Patient assessment and evaluation of medication regimen

- › Review medical record including patient history, medications list, clinical metrics, communications received from other health care providers
- › Compare documented medications list against patient reported medications
- › Evaluate effectiveness of current medication regimen
- › Assess medication adherence and technique (e.g. Insulin injection/inhaler technique)
- › Identify medication related problems

3. Recommendations and plan development

- › Formulate medication management plan based on patient assessment ensuring patient understands and agrees to the plan
- › Medication list reconciliation
- › Patient/carer education to ensure understanding of plan, correct technique
- › Document recommendation in patient file

4. Follow up, monitoring and support

- › Discuss recommendations with patient's GP, document acceptance rate
- › Ensure medication list updated based on GP acceptance of recommendations
- › Review patient to evaluate impact of any changes and ensure adherence
- › Modify medications as clinically indicated
- › Review patient after any medication modifications
- › GPP provide education and training to general practice staff, including GPs around new medications, changes to PBS, etc
- › Deliver small group education to patients with similar conditions or medications

The elements of the GPP Program can be closely aligned with the 10 building blocks of high performing primary care. This is illustrated below in figure 3.

FIGURE 3: ALIGNMENT WITH THE 10 BUILDING BLOCKS OF HIGH PERFORMING PRIMARY CARE

1 Engaged Leadership



- › Practice leaders support and endorse the project
- › Practice wide communication about the rollout of the model, input into how it will work at the practice level
- › Practice staff including admin staff, nurses, other allied health professionals are empowered to be involved in the project (eg case conferences, patient identification and bookings)

6 Population Management



- › GPP referral based on patient stratification and eligibility criteria
- › GPP advice related to lifestyle and behavioural factors helps support their recommendation

2 Data Driven Improvements



- › Patient identification based on eligibility criteria
- › Medication list reconciliation to ensure medical records are up to date
- › Review and monitor patient outcomes
- › Evaluation of the interventions

7 Continuity of Care



- › GPP review following hospitalisation or medication change ensures patients are followed up at critical transitions in care
- › GPP review may include offsite or telephone follow ups

3 Patient Registration



- › Eligible patients identified from the practice patient cohort are assigned a GPP who is involved in their overall management as part of the patient care team
- › Enrolment of patients into IC and HCH initiatives

8 Prompt Access to Care



- › Having a clearly defined GPP role enhances patient flow, potentially freeing up GP time
- › Clear guidelines around patient identification and referral will ensure only suitable patients are referred to the GPP

4 Team-based Care



- › GPP are integrated as a member of the patient care team
- › GPP, GP, patient and other health professional conduct case conference to discuss recommendations, management plans
- › GPP engages the patient and helps address their needs across the medical neighbourhood

9 Comprehensiveness and Care Coordination



- › Integrating the GPP into the patient's care team allows for enhanced management of patients post discharge from hospital through an innovative hospital pharmacist-GPP engagement model
- › Care facilitators involved in the patient care team will be able to provide further care coordination as needed

5 Patient-team Partnership



- › GPP consultation ensures patient is empowered, educated and understands their medication regimen
- › Patient provided with the opportunity express their views/concerns as well their understanding of the medications they are taking
- › Case conferences truly integrate the patient into the patient-team partnership

10 Quality General Practice of the Future



- › The GPP model is a unique, innovative model which can be translated to other health professionals. This utilises the skills and expertise of health professionals in their specialty area.
- › Funding needs to be changed to support the true integration of this model into primary care

3. WESTERN SYDNEY GENERAL PRACTICE PHARMACIST INITIATIVES

Following the success of the initial pilot phase, WentWest has initiated a number of projects relating to pharmacists in the primary care setting. These include:

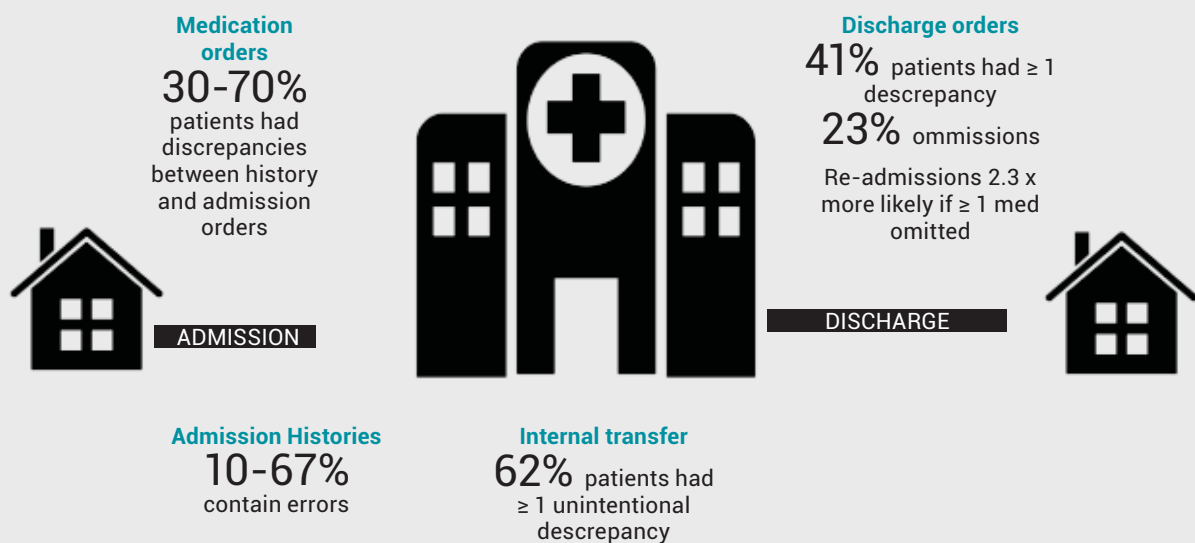
1. Western Sydney Integrated Care Program
2. Cluster Controlled Trial
3. General Practice Pharmacist Training Program
4. Minor Ailments Study

WESTERN SYDNEY INTEGRATED CARE PROGRAM

WentWest, in partnership with the WSLHD have implemented an innovative model of care to support enrolled IC patients. Should an IC patient be admitted to hospital, they will receive a consultation with a hospital pharmacist. On discharge the hospital pharmacist provides a medication summary back to the patient's primary care team. The GPP will follow up with the patient to ensure they are managing their medications appropriately post discharge.

This model is designed to significantly reduce medication discrepancies and mismanagement (illustrated in figure 3) which can occur when patients are admitted to and discharged from hospital.

FIGURE 3: MEDICATION ERRORS AT TRANSFER OF CARE¹⁴



"The program has contributed to all elements of the Quadruple Aim through the strengthening of team based primary care. We have been delighted to be able to provide PHN leadership and commissioning support with our partners to this program. We would like to see a broadly-based expansion of approaches such as these that strengthen teams in primary care because we know that will benefit patients and their families."

- Walter Kmet, WentWest CEO

CLUSTER CONTROLLED TRIAL – GENERAL PRACTICE PHARMACISTS SUPPORTING INTEGRATED CARE

WentWest is partnering with UTS to conduct a Cluster Controlled Trial to evaluate the clinical, humanistic and economic impact of having a GPP integrated as part of the patient care team. This trial compares the outcomes for IC patients who receive a GPP intervention against those who do not. Patients are followed up for six months post intervention to capture data regarding the impact of the intervention.

GENERAL PRACTICE PHARMACIST TRAINING PROGRAM

WentWest is partnering with UTS to research, develop and evaluate a comprehensive training program for GPPs. This is designed to provide an education opportunity for pharmacists wishing to formalise their skills and knowledge in this specialist area. The program involves:

1. Evidence-based competency development and educational needs analysis
2. Curriculum and educational program development
3. Program delivery and evaluation

RANDOMISED CONTROLLED TRIAL – MINOR AILMENTS STUDY

WentWest is partnering with UTS to research and develop an integrated model for minor ailments care in the community pharmacy setting in Australia. The model for an integrated pharmacist-delivered minor ailments service consists of five core features that include:

- a. Formalised clinical care pathways for minor ailments agreed between general practitioners and community pharmacists, with agreed referral processes, delivered on an ICT platform;
- b. A generic non-prescription medicines formulary delivered on an ICT platform;
- c. A standardised consumer-pharmacist consultation during routine practice using the above clinical pathways and patient follow up with data collected via an iPad;
- d. Shared clinical information, communication and feedback to the general practitioner delivered on an ICT platform;
- e. An educational training program for pharmacists delivered face-to-face including strategies to support and improve consumer self-care, and ICT systems.

Following on from a successful pilot of this project, an RCT commenced in June across 30 pharmacies in western Sydney.

The question in my mind is how we can afford to not do this because this level of integration, this level of collaboration seems to me, to be a vital part of the future of how we manage, how we practice medicine in the primary care setting.'

– Dr Kean Seng Lim, AMA President (NSW)

4. OUTCOMES TO DATE

Outcomes from the GPP program¹⁵

UTS conducted an evaluation of phase 1 of the GPP program. The objectives of this initial six months study were to:

1. Identify and classify the drug related problems (DRPs) detected as a result of GPP consultations
2. Compare the number of pharmacist recommendations and GP acceptance rates as a result of consultations

The six pharmacists involved in the study completed 493 consultations. They identified 1124 DRPs and made 984 recommendations, of which 685 (70%) were recorded as accepted by the patient's GP. 50% of the drug related problems are related to medication use without indication and over dosage.

An advantage of this study included the implementation of the intervention across multiple sites in differing socioeconomic areas with multiple participating pharmacists. This multiple site, multiple practitioner design demonstrates that this type of intervention is potentially reproducible and feasible for more widespread implementation.

OUTCOMES FROM THE MINOR AILMENTS PILOT

The outcome of the minor ailments pilot was most frequently a non-prescription medicine with self-care advice (84.5%, N = 49). Control participants were significantly more likely to receive a non-prescription medicine without self-care advice compared to those receiving MAS (Group B 10.3%; Group A 72.7%).

At follow-up, 92.8% of the intervention group reported symptom relief or resolution compared with 78.6% of participants receiving usual care. 21.4% of usual care participants reported no improvement or worsening of symptoms at follow up compared to 7.1% receiving intervention.

"The more I work with the General Practice team, the more opportunities I find to be involved with helping to improve patient outcomes. Working in a collaborative team focused on helping and supporting patients achieve their health goals is a very rewarding experience. I am often told by patients that they found their sessions with me beneficial and informative. The most common closing remark from my patients is, 'Thank you very much. I learned a lot today and you have given me some great ideas.'"

– Tim Perry, General Practice Pharmacist

5. FUTURE DIRECTIONS

1. Completion of the Cluster Controlled Trial to validate economic, humanistic etc impact of the pharmacist in general practice project.
2. Completion of an RCT to validate the overall health and economic impact of the minor ailments project.
3. Work to integrate pharmacists into the patient care team regardless of where they are located.
4. Explore opportunities for sustainable funding models, including training programs.
5. Expansion of the model more broadly across general practice, beyond Integrated Care and Health Care Homes programs.

REFERENCES

1. Australian Government Treasury . Intergenerational Report 2010. Australia to 2050: Future Challenges.2010. Accessed at <https://treasury.gov.au/publication/2015-intergenerational-report/> Accessed 24/10/2017
2. Britt H HC, Miller G, Knox S. Prevalence and patterns of multimorbidity in Australia. *Med J Aust* 2008;189:72-77.
3. Gnjjidic D, Hilmer SN, Blyth FM, et al. Polypharmacy cutoff and outcomes: five or more medicines were used to identify community-dwelling older men at risk of different adverse outcomes. *J Clin Epidemiol* 2012;65:989-995.
4. Roughead EE, Semple SJ, Rosenfeld E. The extent of medication errors and adverse drug reactions throughout the patient journey in acute care in Australia. *Int J Evid-Based Healthc* 2016;14:113-122.
5. Caughey GE, Kalisch Ellett LM, et al. Suboptimal medication-related quality of care preceding hospitalisation of older patients. *Med J Aust.* 2015;203:220 e221-227.
6. Tan EC, Stewart K, Elliott RA, et al. Stakeholder experiences with general practice pharmacist services: a qualitative study. *BMJ Open.* 2013;3:e003214.
7. Freeman C, Cottrell WN, Kyle G, Williams I, et al. Integrating a pharmacist into the general practice environment: opinions of pharmacist>s, general practitioner>s, health care consumer>s, and practice manager>s. *BMC Health Serv Res* 2012;12:229.
8. Tan EC, Stewart K, Elliott RA, et al.. Pharmacist services provided in general practice clinics: a systematic review and meta-analysis. *Res Social Adm Pharm.* 2014;10:608-622.
9. Freeman CR, Cottrell WN, Kyle G, et al. An evaluation of medication review reports across different settings. *Int J Clin Pharm.* 2013;35:5-13.
10. Tan EC, Stewart K, Elliott RA, George J. Pharmacist consultations in general practice clinics: the Pharmacists in Practice Study (PIPS). *Res Social Adm Pharm.* 2014;10:623-632.
11. Australian Medical Association. General Practice Pharmacists Improving Patient Care: AMA; 2015. Accessed at <https://ama.com.au/article/general-practice-pharmacists-improving-patient-care> Accessed 5/10/2017
12. Pharmaceutical Society of Australia . PSA welcomes AMA submission on pharmacists working in GP practices2015. Accessed at <https://www.psa.org.au/media-releases/2015-releases/psa-welcomes-ama-submission-on-pharmacists-working-in-gp-practices> Accessed 8/11/2017
13. Bodenheimer, T, Ghorob, A, et al. The 10 building blocks of high-performing primary care. *Annals of Family Medicine.* 2014;12:166-171
14. Benson, H. Integrated Care Study Program Training 2018
15. Benson, H, Lucas, C, Kmet, W et al.. Pharmacists in general practice: a focus on drug -related problems. *International Journal of Clinical Pharmacy.* 2018 <https://doi.org/10.1007/s11096-018-0617-9>

ABOUT WENTWEST

Since 2002 WentWest has been part of the western Sydney community, delivering support and education to primary care and working with key partners to progress the region's health system. As the Western Sydney Primary Health Network, WentWest is focused on addressing both regional and national health challenges. Together with health professionals, partners from both the health and hospital sector, consumers and the broader community, WentWest seeks to identify gaps and commission solutions for better health outcomes.

WentWest acknowledges Aboriginal people as the traditional owners of the land. We also pay respect to our Aboriginal Elders, past and present and extend that respect to include Aboriginal people of today.



WentWest Limited

Level 1, 85 Flushcombe Road
Blacktown NSW 2148

PO Box 5
Blacktown Post Shop
NSW 2148

T: (02) 8811 7100
F: (02) 9622 3448
E: wentwest@wentwest.com.au
www.wentwest.com.au