FEDERAL BUDGET 2018-2019 SUBMISSION

The Society of Hospital Pharmacists of Australia

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Introduction

The Society of Hospital Pharmacists of Australia (SHPA) believes that funding for medicines and pharmacy services should focus upon the achievement of health outcomes, rather than volumetric measures of the delivery of services, in order to produce better health outcomes for Australians, and a greater return on Australia's health budget.

SHPA members are well aware of the pressures of health funding and believe that unnecessary duplication and poor integration of pharmacy care between hospital and community care contributes to this expense. Currently, funding for pharmacist-led services in hospitals and pharmacy care in the community is divided between funding provided through the Community Pharmacy Agreement, negotiated between the federal government and the Pharmacy Guild of Australia; and the funding of hospitals as negotiated between the federal government and state and territory governments. This delineation provides few opportunities for the voices of expert practitioners in medicines management to outline efficiencies, innovations and improvements which are relevant to the allocation of funding.

SHPA is taking the opportunity presented by the Federal Budget call for submissions to flag key areas of federal health policy where changes to budgeted funding could drive significant improvements in line with Australian federal government objectives.

Hospital pharmacists are patient-centred advocates for clinical excellence and quality medicines management. SHPA is the national membership organisation for more than 4,900 pharmacists, associates, pharmacy students and pharmacists in training working in Australia's public and private hospital system. SHPA members oversee 20% of the federal government's Pharmaceutical Benefits Scheme (PBS) expenditure each year equivalent to $240 million according to last year's budget.

Recommendations

1. Support compliance and maximise return on investment in high cost PBS medicines

Innovative solutions to combat medicines non-adherence should be developed to maximise the return on the investment in PBS medicines, in particular high cost PBS medicines. International evidence indicates that introduction of a New Medicines Service would increase adherence benefiting patients as well as generating economic savings.

2. Reduce harm caused by opioid use initiated in hospitals

Opioid use continues to cause significant suffering and premature mortality in Australia, with more than 800 Australians dying per annum from overdose of pharmaceutical opioids, claiming more lives than illicit use of heroin. Opioid dependence can often begin when a patient is discharged after inpatient care which requires pain management. Funding dedicated programs in hospitals to reduce harms from opioid initiation through improved prescribing and discharge processes could reduce this incidence. Opioid Stewardship programs, based on the Antimicrobial Stewardship approach, provide comprehensive management of prescribing of opioids including review, monitoring and de-escalation.

3. Bridge the gap for high-risk patients leaving hospital and returning to care in the community

A new hospital and primary care model of care should be developed to ensure appropriate transitions of care for patients at high-risk of medicines mismanagement and/or hospital readmission. This would include patient groups being treated for infections resulting from resistance requiring complex antimicrobial therapy, those requiring management of opioids for chronic pain; treatment for chronic immunosuppressive conditions and patients with complex mental health conditions involving multiple medicines.

4. Provide additional funding to support seven-day clinical pharmacy services in hospitals as part of National Health Funding Reform Agreements for Public Hospitals beyond 2020

The new agreement between the Commonwealth, state and territory governments on public hospital funding from 1 July 2020 should support the provision of seven-day services in hospitals. SHPA supports this as a matter of clinical safety, recognising that traditionally hospital pharmacies provide very limited services on the weekend, especially in regional and rural areas. This does not meet community expectation, and is one of many factors that can contribute to higher mortality rates observed in hospitals on weekends. As key members of the clinical multidisciplinary team it is essential that pharmacy services, including clinical cognitive services, are delivered

consistently to all patients who require them regardless of the day of their admission.

5. Address safety and quality concerns in aged care by embedding pharmacists in Commonwealth facilities and home nursing services

Older Australians often have multiple chronic conditions, take more than five medicines each day and are at a high risk of medicines mismanagement which affects mortality and quality of life. Current programs such as the Residential Medication Management Review (RMMR) program, which allow one medication review over a two-year period, are insufficient to address the complex needs of these patients. Preliminary Australian evidence indicates that embedding pharmacists into care teams for older Australians delivers benefits in quality of care and safety, returning $1.54 per $1 of investment.

6. Improve antimicrobial stewardship in all Australian healthcare facilities to address the threat of antimicrobial resistance

To achieve the goals outlined in Australia's first National Antimicrobial Resistance Strategy, Antimicrobial Stewardship pharmacists need to be embedded into all Australian healthcare facilities (including primary and aged care) to ensure the judicious and appropriate use of antimicrobials, and preserve their clinical utility.

7. Fund hospitals to provide Closing the Gap Pharmaceutical Benefits Scheme Measure ('the Measure') services to Indigenous people

Despite recent changes to the 'Measure', hospitals remain excluded from Closing the Gap funding for medicines dispensed at discharge for Indigenous patients. The requirement for a co-payment to receive medicines at discharge has resulted in ongoing inequity in the provision of medicines. SHPA members remain gravely concerned about this issue.

8. Develop a national pharmacy workforce reform strategy

A national pharmacy workforce reform strategy is essential to ensure current and future pharmacists can serve the contemporary needs of Australia's ageing population. Pharmacists are a comparatively young, highly skilled, growing clinical workforce with great capacity to support the needs of Australians with chronic health conditions.

Policy discussion

1. Support compliance and maximise return on investment in high cost PBS medicines

Recent government statistics show that the costliest medicines to the Federal Government and the PBS are complex medicines commonly initiated in hospitals by specialist physicians, and then dispensed by hospital pharmacies when the patient is discharged from hospital. Unfortunately, evidence shows medicines – even those for complex and serious conditions – are often not taken by patients to achieve the best results. It is estimated that 41% of Australians have stopped taking prescribed medicines before they were meant to, on at least one occasion [1]. SHPA believes that innovative solutions to combat medicines non-adherence (i.e. New Medicines Service) should be developed to maximise the return on investment in PBS medicines, particularly in high-cost PBS medicines.

Drug	Cost to government	Indication
1. Ledipasvir and Sofosbuvir	$969,208,772	Curative treatment for chronic Hepatitis C
2. Sofosbuvir	$927,284,256	
3. Daclatasvir	$347,075,507	
4. Adalimumab	$320,626,014	Crohn's disease, ulcerative colitis
5. Aflibercept	$261,241,529	Diabetic macular oedema, subfoveal choroidal neovascularisation
6. Ranibizumab	$213,069,118	
7. Trastuzumab	$160,173,513	HER2+ breast cancer
8. Pregabalin	$159,616,588	Neuropathic pain
9. Denosumab	$152,044,886	Osteoporosis, bone metastases, bone tumours
10. Etanercept	$146,737,356	Rheumatoid arthritis, psoriatic arthritis, active ankylosing spondylitis

Table 1 Top 10 drugs by cost to government (does not include rebates) Department of Health, 2017

According to the Department of Health, the costliest drugs to the government are Hepatitis C medications as depicted in Table 1[2]. Now a curative treatment, medicines for Hepatitis C are also among the most difficult for patients to take correctly due to complexity of medication regimen over a prolonged period, the typical patient demographics and the sustained side-effects.

There is no current service in Australia which focuses on assisting patients with self-managing the introduction and use of expensive new medicines, nor any formal process to assist patients to recognise and address issues encountered when commencing these medicines. Instead, patients are expected to proactively identify issues as they occur and contact a health professional.[2] This frequently fails as 28% of avoidable rehospitalisation within 30 days of discharge involve medicine error[3]. Programs of therapeutic education and case management are

essential to improve adherence, quality of life, likelihood of viral suppression, improvement of liver disease, and decreased incidence of late complications[2].

The United Kingdom (UK) introduced a New Medicines Service (NMS) in 2011 for patients starting new medicines to manage chronic diseases. A study examining the effectiveness of NMS concluded that the service had increased the proportion of patients adhering to new medicine by 10 percent compared with normal practice[4]. Analysis of the economic savings were also significant.

SHPA believes that a similar service would improve the use of medicines and medication adherence for individual consumers, as well as increase post-market medicine surveillance of targeted medicines in Australia[2]. A New Medicines Support Service would identify people diagnosed with flagged conditions beginning a new medicine, as they are discharged from hospital for either a face-to-face or telehealth consultation by a pharmacist based at a hospital, in primary care, or in a community pharmacy setting. The service would ideally interface with the federal government's Health Care Homes programme and be uploaded to the patient's My Health Record. Funding for this type of service would build on scattered hospital-funded liaison services, to ensure high-risk patients from all areas receive appropriate support to achieve the goals of treatment funded by the federal government, and avoid inequitable outcomes.

2. Reduce harm caused by opioid use initiated in hospitals

Opioid use continues to cause significant suffering and premature mortality in Australia, with over 800 Australians dying per annum from overdose of pharmaceutical opioids, claiming more lives than illicit use of heroin [5]. Opioid dependence can often begin when a patient is discharged after inpatient care which requires pain management [6]. Funding dedicated programs to reduce harms from opioid initiation occurring in hospitals through improved prescribing and discharge processes could reduce the incidence of this. Opioid Stewardship programs, based on the Antimicrobial Stewardship approach, provide comprehensive management of prescribing of opioids including review, monitoring and de-escalation.

Opioid stewardship involves coordinated interventions to improve, monitor and evaluate the use of opioids in patients for acute, chronic or acute on chronic pain. To manage acute pain experienced during hospital admissions, patients require dose adjustments, conversion to alternative opioid analgesics, or use of additional opioid/non-opioid analgesics. Opioid stewardship pharmacists regularly review patients who have had significant changes to their pain medication regimen, or commenced therapy with opioids during their admission, to ensure that therapy is appropriate, and that there is an established pain management and opioid de-escalation plan during their inpatient stay, at discharge, and transition back into community.

Hospital pharmacists are well placed to take an active role in patients' pain management and to reduce their risk of developing opioid dependence through harm reduction programs. Hospital pharmacists are experts in medicines management and utilise their knowledge to recommend appropriate pain therapies and dosing to doctors and nurses, as well as counsel patients to

establish pain management goals and opioid de-escalation plans. From a systems level, hospital pharmacists are also able to conduct drug use evaluations on opioids within their health service, monitor prescribing patterns and identify trends and strategies to improve the quality of opioid prescribing and their use.

3. Bridge the gap for high-risk patients leaving hospital and returning to care in the community

With the commencement of the Health Care Homes (HCH) pilot program, and to address ongoing contemporary health needs of the ageing Australian population, SHPA believes the development and funding of a new care model for high-risk patients is essential for patients leaving hospital at high-risk of medicines mismanagement and/or hospital readmission.

Hospital pharmacists have the capacity to provide care planning and case management for patients at high-risk of medicines mismanagement and subsequent hospital readmission. Health problems related to unintended misuse of medicines as well as complications of polypharmacy and side-effects are a key driver of 28% of readmissions[4]. Piloting a new care model which utilises these clinical skills and the opportunity of discharge to deliver an improved transition of care from hospitals to care teams including HCH, primary care physicians and community pharmacies would boost effective healthcare in a cost-effective manner, without the need to reimburse businesses for continuing existing services.

This pharmacy service model would extend the care provided by clinical pharmacists in hospitals to patients who continue to be coordinated by hospital-based specialists, where patients are most at risk of readmission. It would also prioritise liaison with General Practitioners (GPs), community pharmacists as well as hospital-based services. It would complement, not diminish, the current medication review services and retain the vital role of community pharmacists at the primary care interface. By focusing on medication reconciliation and safety, it would also meet the requirements of Australian Commission on Safety and Quality in Health Care's *National Safety and Quality Health Service Standards.*

Key targets for the service would include patient groups being treated for infections requiring complex antimicrobial therapy, management of opioids for chronic pain, treatment for chronic immunosuppressive conditions and patients with complex mental health conditions involving multiple medicines. Patients in these groups are at higher risk of medicines mismanagement and thus readmission, due to types of medicines used to treat their conditions. More information about individual patient groups commonly treated in both hospital and community settings is below.

- Treatment of infections resulting from antimicrobial resistance

Patients with complex conditions and/or who are immunosuppressed secondary to other chronic conditions (such as cancer, immune disorders and organ transplantation), or develop severe infections resulting from antimicrobial resistance, often require long-term antimicrobial therapy

upon discharge from the hospital. Ensuring adherence and regularly reviewing appropriateness of medicines and dosages are critical for treatment success and reducing the risk of readmission to hospital.

- Opioids for acute and chronic pain

Patients often have admissions to hospitals involving pain where analgesics are prescribed to manage their pain. When discharged, patients often receive prescriptions including opioid analgesics. Research from Queensland Health presented at *Medicines Management 2017* demonstrated that some issues prevalent at the transitions of care include misunderstanding of reducing analgesic dose plans, as well as the absence or delay of handover to the patient's GP for pain management. Medication reviews after discharge from hospital improve the understanding of dosing schedules, so patients can successfully wean off opioids completely or reduce their dosage, therefore reducing the incidence of developing dependence.

- Complex mental health patients

Patients with complex mental health issues often have poor medicines adherence, with 50% of patients becoming non-adherent in the first month following discharge[7]. Medicines non-adherence in this patient category can be responsible for relapses which affect patients' capacity for engagement in employment and the wider community, negatively influencing broader recovery.

4. Provide additional funding to support seven-day clinical pharmacy services in hospitals as part of National Health Funding Reform Agreements for Public Hospitals beyond 2020

The mortality rate in Australian hospitals during the weekend is 16% higher than during the week[8]. From 1 July 2020, the new agreement between the Commonwealth, state and territory governments on public hospital funding should support the provision of seven-day services in hospitals, in line with community expectation of healthcare service quality. Unlike medical and nursing staff, hospital pharmacists do not routinely work weekends in many hospitals, meaning that fewer or no clinical services are provided to weekend patients, increasing the risk of medicine-related issues.

Seven-day pharmacy services would ensure that high quality, safer care is available to all. It would involve the consistent delivery of bedside clinical pharmacy services, collaboration with doctors and nurses in wards, routine medicines reconciliation and medicines safety consultations as well as the dispensing of medicines for patients to take home for continuous treatment. The implementation of a seven-day service would avoid compromising patient care and safety, and improve patient experience[9]. A seven-day clinical pharmacy service has already been successfully implemented in the UK by the NHS[10] resulting in fewer missed medicine doses, prescription errors, greater medication reconciliation and fewer patients experiencing a delayed discharge or discharge without medicines for home use.

From the proceedings of the *Medicines Management Conference 2017*[11], Australian research presented from a seven-day model trial in a large metropolitan health service in Victoria demonstrated improved outcomes for high-risk patients. A fully comprehensive solution would

involve a seven-day service available for hospital services, with outpatient appointments on weekends as well. The seven-day practice will allow hospital pharmacists to meet SHPA's *Standards of Practice for Clinical Pharmacy Services*, as well as Australian Commission on Safety and Quality in Health Care's *National Safety and Quality Health Service Standards*.

5. Address safety and quality concerns in aged care by embedding pharmacists in Commonwealth facilities and home nursing services

The Federal Government of Australia funds care for approximately 240,000 patients in aged care facilities annually. Residents of aged care facilities are often at an unnecessarily high-risk of poor health outcomes, as a result of the challenge of managing medicines for multiple chronic conditions. The SHPA strongly recommends that the Federal Budget allocate funding to embed clinical pharmacists to work in all Commonwealth aged care facilities, and home nursing services to improve patient safety and quality of care. Preliminary Australian evidence indicates a return on investment of $1.54 for every $1 spent.

According to the 2014-15 National Health Survey, approximately 50% of Australians have at least one prominent chronic condition, and approximately 60% of elderly Australians have two or more chronic conditions[12]. Current federally funded programs such as the Residential Medication Management Review (RMMR) program, which allow one medication review in a two-year period, are insufficient to address the complex needs of these vulnerable patients who require regular monitoring and review, and would benefit from continuity of care. Less than one in 20 patients receive the GP-initiated RMMR despite nurse requests, instead overburdening nurses with medicine management tasks[13]. Nearly 50% of aged care nurse visits are for medicine management[14]. The unstructured environment and barriers to interdisciplinary communication and team work in the aged care setting also increase the risk of medication errors[15].

A 2017 study conducted in a large non-profit home nursing service in Melbourne implemented a clinical pharmacy model within an Australian home nursing service using co-creation and participatory action research. The model framework was based on extensive stakeholder engagement and consultation, and best practice clinical pharmacy and medication management standards and guidelines. Clinical pharmacists carried out direct and indirect client care. The model allowed nurses to refer directly to the pharmacists, enabling timely resolution of medication issues as it addressed the deficiencies with the current model of RMMR[13]. This model has already been implemented in the Eastern Melbourne Primary Health Network in collaboration with the Royal District Nursing Service (RDNS) where the program integrates clinical pharmacist's services to streamline access to medication management expertise for clients assessed as being at higher risk of medication misadventure[16].

Further work is required to confirm the model is cost-effective however preliminary evidence from the pilot study together with published data from medication review outcomes, show that this model can save money for Australia's health system, returning $1.54 for every $1 invested. These savings are calculated based on reduced medication use, GP visits, hospitalisations and nurse visits[13] and do not include less tangible benefits such as fewer falls or greater quality of

life, which would increase the return on investment. Comparable research in the United States of America and the United Kingdom found that patients who received pharmacist review were less likely to have a hospital admission or emergency visit compared to those who did not[17,18].

6. Improving antimicrobial stewardship in all Australian healthcare facilities to address the threat of antimicrobial resistance

The SHPA strongly recommends that adequate funding is provided to ensure appropriate numbers of pharmacists are employed to support effective antimicrobial stewardship (AMS) in all public and private hospitals including those in regional and rural areas. There is increasing evidence that antimicrobial prescribing in the Australian community, including in aged-care facilities, is often inappropriate[19]. Models for AMS in community, general practice and aged care settings should also be explored and resourced to address increasing rates of antibiotic resistance.

To combat the increasing threat of antimicrobial resistance, the World Health Organisation Global Action Plan on Antimicrobial Resistance recommends that all countries provide stewardship programs to monitor and promote optimisation of antimicrobial use at national and local levels[20]. Australia released its First National Antimicrobial Resistance Strategy in 2015, of which AMS is a key objective for national action[21]. AMS is also included in the second version of the ACSQHC's *National Safety and Quality Health Service Standards*[22].

A recently published systematic review and meta-analysis showed that AMS programs significantly reduce the incidence of infections and colonisation with antibiotic-resistant bacteria in hospital patients [23]. Pharmacists are integral to AMS programs, and are required to review antimicrobial prescribing and use, provide surveillance data to national programs, use surveillance data locally to support antimicrobial prescribing, and review and provide feedback on the appropriateness of prescribing and compliance with current evidence-based antimicrobial prescribing guidelines [24].

Across Australia, the number of AMS pharmacists relative to the number of hospital beds is variable, with many hospitals having insufficient, or no AMS pharmacists to provide an optimal AMS service. Minimum resources required to establish and maintain an effective AMS pharmacy program in Australia have not been defined. A recent US study estimated that one full-time equivalent pharmacist per 100 occupied beds is needed to implement and manage a robust stewardship program[25]. Additional funds for pharmacists to lead, manage and participate in hospital AMS programs would expand Australia's capacity to minimise harm from antimicrobial resistance and healthcare associated infections, reducing burden on the health system. It is also essential that any additional federal funding for AMS pharmacy personnel is not redistributed by State governments, and that strategies are in place to ensure that the funds are utilised for the purpose for which they are intended.

7. Fund hospitals to provide Closing the Gap Pharmaceutical Benefits Scheme Measure (the Measure) services to Indigenous people

Despite federal funding for medicine provision in community pharmacies through the Closing the Gap program, public hospitals are unable to offer these subsidies to Indigenous patients when they are leaving hospital. The SHPA believes that recent policy changes made to the Closing the Gap (CTG) Pharmaceutical Benefits Scheme Measure (the Measure) should extend to ensure Australian hospital pharmacies are able to improve the delivery of medicines and pharmacy services to all Aboriginal and Torres Strait Islander patients at the point of discharge and in outpatient clinics.

Since the implementation of the Measure in 2010, access for Aboriginal and Torres Strait Islander people to medicines and pharmacy services has greatly improved, however substantial gaps remain. The 2017 memorandum of understanding with the National Aboriginal Community Controlled Health Organisation (NACCHO) and the Pharmacy Guild of Australia, has addressed some issues, such as allowing hospital-based prescribers to issue prescriptions eligible for the Measure, linking a patients' CTG status through a nationally accessible identifier such as Medicare card, and extended the Measure to include Section 100 Highly Specialised Drugs (HSD) such as HIV antiretrovirals and clozapine. However, the omission of hospital pharmacies in the Measure remains troubling.

Without access to the Measure, individual hospital policies (which require a co-payment as specified by PBS procedures) often prevent Indigenous patients from receiving their medicines at discharge to avoid incurring operational cost. If patients are unable or unwilling to pay the co-payment, they must attend a community pharmacy to receive discharge medicines. Research shows that these patients have lower medicines adherence compared to other population groups[26], and that over a quarter of patients fail to make it to a local pharmacy until days later to have their discharge prescription dispensed[27]. Poor access to medicine can potentially compromise a patient's health and cause preventable readmission. Given the poor health outcomes for many Indigenous people, SHPA believes it is a disservice they are often unable to access discharge medicines at the point of its prescribing. This also prevents the provision of expert advice related to the new medicines regimen by the pharmacist who has counselled them during their inpatient stay.

8. Develop a national pharmacy workforce reform strategy

A national pharmacy workforce reform strategy should be developed to ensure current and future pharmacists can serve the contemporary needs of Australian patients, and that developments in technology can be optimised.

Since Health Workforce Australia was absorbed into the Commonwealth Department of Health, critical information and analysis around the national pharmacy workforce has been lacking. Hospital pharmacists represent approximately 20% of the pharmacist workforce operating at the highest levels of clinical pharmacy practice in hospitals as well as in other healthcare services. With 30,000 pharmacists currently registered in Australia and 78% under the age of 40, the pharmacy workforce is comparatively young, recently educated and growing annually[28]. This

means that pharmacists' capacity to support the growth of healthcare roles to address the contemporary health needs of modern Australia is significant. With strategic oversight from a workforce reform plan pharmacy could further develop the clinical cognitive skills in its workforce to enable greater collaboration with medical and nursing colleagues in hospital and community settings. This would complement developments in technology which enable remote dispensing and mechanise medicine compounding.

In 2017, in response to member demand, SHPA introduced the SHPA Residency Program which gives early-career hospital pharmacists the opportunity to undertake a nationally consistent, structured two-year program to consolidate and further develop their skills in clinical pharmacy and increase the clinical capacity of the workforce. Recently, SHPA was instrumental in reviving Advanced Practice, allowing experienced Australian pharmacists to undergo credentialing and become recognised as an Advanced Practice Pharmacist. According to the International Pharmaceutical Federation Education, professional recognition of Advanced Practice Pharmacists is important to provide development pathways to keep pharmacists engaged with the profession. It also benefits patients as recognising advanced-level pharmacists can improve patient safety and deliver better health outcomes through the effective management of complex cases in expert practice areas[29].

The activities of membership bodies such as SHPA to support the clinical workforce would be enhanced by greater engagement with government bodies who are planning health services and workforce development, through a workforce plan, for the benefit of the Australian community.

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