

## SHPA submission to IHACPA consultation on the Pricing Framework for Australian Public Hospital Services 2024–25, July 2023

#### Introduction

The Society of Hospital Pharmacists of Australia (SHPA) is the national, professional organisation for the 6,100+ Hospital Pharmacists, and their Hospital Pharmacist Intern and Hospital Pharmacy Technician colleagues working across Australia's health system, advocating for their pivotal role improving the safety and quality of medicines use. Embedded in multidisciplinary medical teams and equipped with exceptional medicines management expertise, SHPA members are progressive advocates for clinical excellence, committed to evidence-based practice and passionate about patient care.

SHPA welcomes the opportunity to provide input into the consultation on the Pricing Framework for Australian Public Hospital Services 2024–25. Hospital pharmacists as medicines experts operatively manage and clinically ensure the safe, efficient and effective use of medicines within Australia's hospital system. Hospital pharmacists are responsible for almost a quarter of all Pharmaceutical Benefits Scheme (PBS) medicines expenditure, accounting for just over \$3 billion in expenditure from public and private hospitals each year when providing care and supplying medicines to hospital patients.

Hospital pharmacists are skilled in providing clinical services in line with SHPA's Standards of Practice for Clinical Pharmacy Services<sup>1</sup>, which ensure quality and effective use of medicines for patients improving overall health outcomes. These clinical services enable the federal government to mitigate unnecessary health costs by reducing medication wastage, reducing medication-related harms, optimising medication use, decreasing patient length of stay in hospital and reducing hospital readmissions and their associated Medicare costs. The value of clinical pharmacy services is well documented in literature; an Australian economic analysis indicating a \$23 return for every \$1 spent on clinical pharmacy services.<sup>2</sup>

Hospital pharmacists contribute to system-wide governance activities to reduce medicine complications and hospital-acquired complications (HAC) stemming from medicines. The role of hospital pharmacists is highlighted in 12 out of the 16 HAC information kits<sup>3</sup> published by the Australian Commission for Safety and Quality in Health Care (the Commission).

The COVID-19 pandemic has also accelerated the development of newer models of care, including hospitalinitiated community in-reach/outreach and virtual services. These models make it clear that the boundaries between the patient, the care provider(s) and their physical location are no longer relevant to the process of care delivery. Despite this, these factors play a key determinant in access to subsidised funding, as noted in the review of PBS Pharmaceuticals in Hospitals.<sup>4</sup>

SHPA has provided responses to the most relevant questions below. If you have any queries or would like to discuss our submission further, please do not hesitate to contact Jerry Yik, Head of Policy and Advocacy on jyik@shpa.org.au.



#### **Response to consultation questions**

### 3. What clinical areas and/or structural features should IHACPA consider in the development of the Emergency Care Principal Diagnosis (EPD) Short List Thirteenth Edition?

IHACPA should consider the significant and cost-effective involvement of Emergency Medicine pharmacists in the delivery of safe and quality health care to patients admitted to Emergency Departments (EDs) in Australia. The activities undertaken by these medication experts must be costed into the development of the Emergency Care Principal Diagnosis (EPD) Short List Thirteenth Edition.

Challenges and pressures put on the healthcare system, specifically on acute care in hospitals, has been increasingly demanding with public hospital emergency departments seeing the highest number of presentations ever recorded in 2020-21. According to the Australasian College for Emergency Medicine's *State of Emergency 2022* report, there has been a 14% increase in emergency department presentations in 2020-21 compared to 2016-17, a rate of which has exceeded the 5% increase in population growth.<sup>5</sup>

The Australian Medical Association's Ambulance Ramping Report Card also shows that states and territories are not meeting their performance targets, and longitudinal data demonstrates that the time it takes to transfer a patient from the ambulance to the care of the hospital emergency department has been overall increasing each year.<sup>6</sup>

With increasing emergency department presentations across the country, patient flow must not only be efficient but must also consider patient safety. SHPA's Standards of Practice in Emergency Medicine Pharmacy Practice<sup>7</sup> outlines the key role of Emergency Medicine pharmacists in the clinical care required to facilitate safe and effective bed flow including conducting a Best Possible Medication History as well as prompt supply of medication.

A significant proportion of pharmacist interventions relate to medications taken prior to or initiated on admission. Medication reconciliation and review is possibly the most important part of the Emergency Medicine service. The documentation of medications taken prior to presentation to the ED is completed as early as possible, enabling rational therapeutic decisions to be made in the ED and after transfer or discharge. A study into the accuracy of medication histories documented on GP referral letters showed 87% had one or more discrepancies in the patient's regular medications with 62% having one or more that were of moderate-high significance.<sup>8</sup> Obtaining the Best Possible Medication History (BPMH) at admission is therefore critical in ensuring medication errors do not continue and contribute to the acute presentation.

The Emergency Medicine pharmacist also identifies drug-related problems occurring at home which may have contributed to the ED presentation. A high proportion of these medication errors and associated harms can be prevented and intercepted by EM pharmacists at point of admission.<sup>9</sup> If medication-related presentations are identified promptly by EM pharmacists, they could also facilitate a swift discharge directly from the ED, preventing the need for the patient to be admitted and contribute further to access block. Furthermore, if there is a risk of readmission identified, a referral could be made by the EM pharmacist to outreach services such as Hospital in The Home (HITH) or referral to a Transitions of Care pharmacist to prevent readmission.

Recently, the NSW Government Response to the Inquiry into the impact of ambulance ramping and access block on the operation of hospital emergency departments in New South Wales<sup>10</sup> supported SHPA's recommendation that NSW hospitals consider the implementation of Partnered Pharmacist Medication Charting (PPMC) in emergency departments.

PPMC is the first iteration of pharmacist prescribing in Australian settings. Other jurisdictions are following suit, with a total of six jurisdictions either having implemented or in the process of implementing pharmacist prescribing in hospital settings. Typically, they are implemented in high-flow patient areas, such as EDs, to support patient flow and medical workforce capacity, whilst increasing quality and safety.



In the PPMC model, an appropriately credentialed pharmacist conducts an interview with the patient/carer and obtains the best possible medication history (BPMH), then co-develops a medication plan for that patient with the treating doctor, patient/carer and nurse, and charts the patient's regular medications and the doctor charts any new medications. This model has been proven to reduce the proportion of inpatients with at least one medication error on their chart by 62.4% compared with the traditional medication charting method, while also reducing the length of inpatient stay by 10.6%.<sup>11</sup> It also decreases the burden on medical staff and clinical resourcing dedicated to medication charting, and increases the through put of patients since medications are already reviewed and accurately charted prior to admission and available to the admitting medical or surgical team.

Clinical services delivered by the Emergency Medicine pharmacists continue to expand and include the administration of vaccines and antidotes. A systematic review into the emerging areas of practice for Emergency Medicine pharmacists such as management of critically ill patients, Antimicrobial Stewardship roles and charting of regular medications were associated with positive patient outcomes.<sup>12</sup>

There is also increasing involvement of Emergency Medicine pharmacists in the prompt management of sepsis and stroke through participation in response teams. Research has demonstrated that by adding an Emergency Medicine pharmacist to the acute stroke call-out team can provide an improvement in the average time to administer treatment to a patient by 12 minutes.<sup>13</sup> Emergency Medicine pharmacists therefore have a key role in contributing to timely access of medicines and medication safety in ED settings.

These benefits to patient safety, quality of care and healthcare system efficiency will also be inputted by SHPA into the upcoming National Scope of Practice Review. SHPA will continue to work with the Commonwealth toward nationally consistent approaches to pharmacist-led initiatives that make hospital care safer and anticipates that these key clinical pharmacy services are costed into the development of the Emergency Care Principal Diagnosis (EPD) Short List Thirteenth Edition.

### 4. Are there any other proposed refinement areas for the Tier 2 Non-Admitted Services Classification for 2024–25?

SHPA advocates for a wider range of non-admitted clinical pharmacy items to be incorporated in the Tier 2 Non-Admitted Services Classification for 2024-25 to encompass the breadth of hospital pharmacy outpatient services being delivered in Australian public hospitals.

A wide variety of pharmacist-led outpatient services are being conducted by hospital pharmacists to ensure safe and effective use of medicines in patients, ultimately reducing the cost of medication-related problems on the Australian healthcare system. These include anticoagulant dosing, opioid analgesia de-escalation and management, chemotherapy medicines review, transplant rejection medicines review and others.

The current singular Tier 2 Clinic 40.04 Clinical Pharmacy, however, does not differentiate between the levels of care provided with each service and should therefore be complemented by other Tier 2 Non-Admitted Services items with varying levels of funding. For example, a pharmacist-led anticoagulant dosing service would require a shorter consultation compared with the significantly more complex chemotherapy medicines review or transplant rejection medicines review.

This has led to various pharmacist-led clinics in hospitals being funded through other means, with this activity going undetected or under-represented by national data collection efforts.

Incorporating a tiered level consultation structure for hospital pharmacy outpatient services would support broader implementation and utilisation in Australian hospitals, better reflect contemporary pharmacy practice and ultimately provide higher quality and safer care that reduces hospital admissions.

### 11. To inform the NEP indexation methodology review, what alternative indices or metrics are publicly available and applicable at a national level, that demonstrate an evidence-based correlation between



### price inflation and cost increases in the delivery of Australian public hospital services? Additionally, what are the underlying drivers of cost growth contributing to these cost increases?

As discussed in SHPA's submission last year to IHACPA's Work Program and Corporate Plan 2022-2023 Public Consultation, the IHACPA's Pricing Framework for Australian Public Hospital Services 2024–25 requires the agency to discount Commonwealth funding provided to public hospitals through programs other than the National Health Reform Agreement (NHRA).

Currently, there are simultaneous reviews being undertaken by the Commonwealth into Section 100 Efficient Funding of Chemotherapy (EFC) and Pharmaceutical Reform Agreements (PRA). Both the Section 100 EFC and PRA are essential for attempts by hospitals and hospital pharmacists to facilitate equitable, timely and affordable access to medicines subsidised on the Pharmaceutical Benefits Scheme (PBS) for cancer patients, and hospital patients receiving medicines upon discharge or from outpatient clinics.

Since Section 100 EFC and PRAs have been enabled throughout most jurisdictions, hospital pharmacists have never been provided appropriate or equitable remuneration compared to community pharmacists for supplying the same PBS medicines. Furthermore, access to the PBS medicines and non-PBS medicines is variable across hospitals due to confounding factors which are explored in SHPA's submissions to these reviews. The findings and recommendations of these reviews will have an impact on the funding and cost of medicines, and the level of clinical pharmacy service required in hospitals to support safe care and quality use of medicines. SHPA's full submissions, containing several recommendations, to each of these significant reviews are attached:

- SHPA submission to National Medicines Policy (NMP)<sup>14</sup>
- SHPA submission to Section 100 Efficient Funding of Chemotherapy (EFC)<sup>15</sup>
- SHPA submission to Pharmaceutical Reform Agreements (PRA)<sup>16</sup>

SHPA notes that under IHACPA's strategic objective to refine and develop hospital activity classifications, its rigorous statistical analysis includes specialist input from clinicians, but SHPA is not aware of input from medication management and pharmacy experts in the collection of appropriate data to identify the complexities and value in medication related activities and interventions.

SHPA believes that IHACPA must consider the outcomes of these reviews as part of its findings and recommendations will have an impact on the cost of medicines, and the level of clinical pharmacy service required in hospitals to support safe care and quality use of medicines.

The recently signed Strategic Agreements between the Commonwealth and Generic and Biosimilar Medicines Association (GBMA) and Medicines Australia also contain various major changes to drug pricing policies which included a suite of policy agreements on pricing arrangements and stockholding requirements to bolster medicine supply and availability through the PBS.

Historically, medicine prices offered to public hospitals were excluded from price disclosure calculations undertaken by the Commonwealth, which has usually resulted in public hospitals being able to secure preferential pricing leveraging its large procurement volumes from wholesalers, compared to purchasing arrangements in the retail pharmacy setting.

From 1 October 2022, medicines on the PBS which have reached the seventh cycle of price disclosure, were included in price disclosure calculations, thus removing incentives for wholesalers to offer pricing arrangements that were preferential to retail pharmacy settings and increasing the cost of medicines procurement for Australian public hospitals. Additionally, written into the GBMA agreement was the introduction of a new \$4 floor price for PBS medicines. PBS medicines with an approved price less than \$2 were increased to \$2.50 and PBS medicines with an approved price between \$2 and \$3.50 were increased by up to \$0.50 to a maximum of \$3.50.



SHPA estimated that the impact of this policy means Australian hospital pharmacies would have to unexpectedly incur an additional \$50 million annually in medicine procurement costs from within their fixed pharmaceutical budgets. Unlike community pharmacies, hospital pharmacies are not funded for the various dispensing fees community pharmacies are able to access via the Community Pharmacy Agreement, and thus the majority of dispensing activities in public hospitals are not a cost-recoverable activity. This pricing policy change has downstream impacts on the ability for pharmacy departments to recruit and fund pharmacists and pharmacist technicians from within their fixed operational budgets.

SHPA believes IHACPA should undertake an impact assessment of these Strategic Agreements on hospital drug pricing, given the cost of medicines for each admission type or procedure is factored into National Weighted Activity Unit (NWAU) determinations.

# 12. & 13. What potential risks should IHACPA consider in progressing price harmonisation of chemotherapy and dialysis for future NEP Determinations? Are there any other public hospital services that are potential candidates for price weight harmonisation across settings?

IHACPA should consider the factors that impact on the delivery of high-cost medicines to patients in public hospitals as a significant contributor to cost-shifting and requiring price weight harmonisation to support efficient and equitable access to all Australians.

Public hospitals and hospital pharmacy departments play a crucial role in access to novel, usually high-cost and/or off-label medicines to treat complex and uncommon diseases before these medicines are registered on the ARTG and well before they are listed on the PBS. Due to the complex and specialised nature of these medicines, as well as their cost, patient access to these medicines differs greatly between hospital networks and between jurisdictions. They are subject to various factors including:

- fixed hospital pharmaceutical budget constraints
- varying access to compassionate access schemes
- local Drug and Therapeutic Committee policies and decisions
- access to specialist clinicians
- proximity to large hospitals
- varying out-of-pocket expenses determined by local and jurisdictional policies

More recently, limitations have been applied to the use of PBS in public hospitals for high-cost medicines requiring initiation in the inpatient hospital setting, potentially resulting in inequity of consumer access.<sup>4</sup>

Examples:

- Nusinersen is PBS subsidised medication used to treat spinal muscular atrophy in children, however if a child has scoliosis, they are administered this medication under general anaesthetic with guided imaging and require a hospital admission for a day or two for recovery. In this case, the cost of the anaesthetic, the staff required to administer the medication, and the additional hospital admission, is not meaningfully recognised by hospital funding mechanisms such as activity-based funding.
- The active agent in some chemotherapy preparations is subsidised via the PBS however the cost of the infusion fluid, excipients, and the administration aids necessary are not. This adds a significant layer of complexity for hospitals and patients in fee arrangements given the use of both PBS and non-PBS medicines.

The lack of suitable funding pathways that provide subsidy for the whole cost of therapy, including ancillary services, drive inequity in access as not all hospital budgets are able to absorb these additional costs and therefore access becomes a matter of postcode lottery.

The PBS aims to provide timely, reliable, and affordable access to necessary medicines for Australians in line with the central pillars and the principle of equity in the National Medicines Policy. Since the commencement



of PRAs, there have been calls for PBS funding of medications to extend to all care settings, including public hospital inpatients in addition to day-admitted and outpatients. However, over 20 years later, these arrangements continue to be limited to specific patient groups and care settings.

In contrast, over this same time period, the definition of a hospital inpatient has evolved. Most states now offer Hospital in the Home, simultaneously described as "admitted care in the comfort of the patient's home" and "an alternative to an inpatient stay."<sup>17</sup> Hospital in the Home programs attract Activity-Based Funding but create a blurred line for funding of pharmaceuticals used by patients in their own home (including regular medications).

Public hospitals are sometimes unable to fund treatment for expensive medicines for inpatients without PBS support. This is often problematic for drugs that require hospitalisation as part of the treatment, highlighting a tension emblematic of historical federal-state funding conflicts.<sup>18</sup>

Examples:

- Blinatumomab is a PBS subsidised immunotherapy that must be initiated during a hospital admission, as highlighted in the PBS authority criteria. The TGA-approved product information states that hospitalisation is required for the first nine days of the first cycle and the first two days of subsequent cycles. Ironically, however, the PBS authority criteria also notes that this medicine cannot be subsidised if administered to an inpatient in a public hospital setting. The cost of delivering this medicine and the hospital admission can be very expensive meaning not all hospitals can afford to deliver this therapy to their patients, creating inequity in access.
- Clinicians at times delay treatment with important medicines such as iron infusions, depot injections for schizophrenia, and oral chemotherapy for inpatients until after discharge where patients are then referred to outpatient or general practice (GP) clinics to access subsidised medicines through the PBS. Not only is this inequitable, inefficient, and delays necessary healthcare, it relies on patients who are recovering from an acute medical event, to make an appointment and present to an outpatient clinic or to their GP to receive necessary, and at times lifesaving medicines. Research shows that over a quarter of patients fail to make it to a local pharmacy until days after discharge to have their discharge prescription dispensed.<sup>19</sup> This poses a significant health risk to patients and at times results in hospital readmissions.

The lack of PBS funding for public hospital inpatients also causes issues for patients admitted to hospitals who are taking high-cost medicines in the community that are listed under Section 100 Highly Specialised Drugs (HSD) or are high-cost Section 85 medicines. If they present to hospital without their regular medicines, which is often the case due to unplanned hospital admissions, then public hospitals are put in a position where they may need to open a PBS pack of very high-cost medicines such as medicines for cystic fibrosis or oral chemotherapy, to ensure continuation of therapy in hospital.

This is extremely inefficient and expensive for public hospitals, and in many instances, these vital medicines are not provided at all until a carer can bring in their PBS-dispensed pack from home, which does not always occur. Once a PBS pack is opened, remaining dosages cannot be resupplied to another patient, and has a major risk of eventually expiring and having to be wasted. This is just another unintended consequence of this inequity that can be rectified by allowing public hospital inpatient access to PBS-subsidised medicines.

The lack of uniform access to the PBS also affects equity of treatment and outcomes, even among states that are signatories to Pharmaceutical Reforms. Access to the PBS for private hospital inpatients means some patients will have access to medicines that are not available in a neighbouring public hospital.<sup>20</sup> These issues are further compounded by the federated approach to hospital funding, medicines formularies and funding.<sup>21</sup>



SHPA strongly advocates for the extension of the PBS to cover all hospital medications which has been identified by the National Centre for Social and Economic Modelling as a key measure that would increase equity of access, remove incentives for cost shifting, and better meet the needs of patients.<sup>22</sup>

Additionally, the incentive to claim for an episode of care each time a patient attends an outpatient appointment can at times be a perverse incentive to increase the frequency that that patient must present to receive treatment, although it may not always be necessary. Certain formulations of medicines that require administration in outpatient clinics, are at times prescribed over other more convenient formulations that can be self-administered at home to ensure clinics can continue to claim episodes of care.

#### Examples:

- Patients requiring methotrexate to treat rheumatoid arthritis or psoriasis, for whom the oral tablet formulation is unsuitable, can often be prescribed methotrexate pre-filled syringes, however some of these patients are prescribed other parenteral formulations to ensure they continue to attend the outpatient clinic.
- Ocrelizumab and natalizumab used to treat multiple sclerosis are intravenous formulations often
  prescribed for patients whilst ofatumumab, a subcutaneous formulation also used to treat multiple
  sclerosis is available for self-administration.

## 16. Given virtual care is a broad and evolving space, what specific areas and care streams where virtual care is being delivered should IHACPA prioritise for further investigation to inform future data collection, classification and pricing refinement?

IHACPA should prioritise further investigation into emerging innovate clinical pharmacy services such as virtual pharmacy services, with data collection informing pricing refinements. Virtual pharmacy services have been used in some parts of rural and remote Australia to address the gaps in clinical pharmacist medication reconciliation, management and review for inpatients.

The development of newer models of care has been accelerated by the COVID-19 pandemic, including hospital-initiated community in-reach/outreach services. The pandemic has also changed Australians' perceptions of virtualised healthcare, with the number of consumers accessing telehealth services growing significantly, now making up to 18% of MBS services being accessed virtually in the first quarter of 2023.<sup>23</sup> According to SHPA's Pharmacy Forecast 2022<sup>24</sup>, by 2027, it is likely that virtual health in Australia will be seen as a conventional means of accessing healthcare and recommends health services prepare to embrace these virtual care delivery models.

With this demand, the adoption of virtual services has been advancing, through TeleChemotherapy services in WA, telehealth services for cardiology patients in rural Victoria,<sup>25</sup> and Virtual Clinical Pharmacy services in NSW and Tasmania. In addition, health services are rolling out Virtual Emergency Department (VED) services, with one study across three Victorian health networks demonstrating a significant increase in adoption of the service and an overall avoidance of physical ED attendance by a majority of patients.<sup>26</sup> These models make it clear that the boundaries between the patient, the care provider(s) and their physical location are no longer relevant to the process of care delivery. Despite this, these factors play a key determinant in access to subsidised funding, as noted in the review of PBS Pharmaceuticals in Hospitals.<sup>27</sup>

Within Statewide Hospital Pharmacy in Tasmania, there is a Primary Health Clinical Pharmacy (PHCP) service which provides a virtual pharmacy service via audio communication to the District Hospitals within Tasmania, to approximately 130 inpatient beds. The PHCP service communicates largely with nursing staff at the District Hospital sites.

Virtual Clinical Pharmacy Service (VCPS)<sup>28</sup> is the New South Wales virtual pharmacy service introduced in two rural and remote NSW Local Health Districts (LHD). NSW has demonstrated how this virtual pharmacy service can benefit rural and remote areas in particular, and could be applied to other Australian jurisdictions, similarly in rural areas. Implementation of NSW's virtual pharmacy service was able to overcome workforce



challenges in these areas and supported reduced social contact requirements during the COVID-19 pandemic. Benefits also include equitable access for patients to pharmacy services across Western NSW and Far West LHDs as well as improving continuity of care by providing up to date medication information to prescribers and patients.

Western NSW LHD has recently undertaken a scalability study across eight of these rural and remote hospitals in NSW, to evaluate if virtual clinical pharmacy services are a feasible option in healthcare delivery and is expected to show a significant increase in best possible medication histories, medication reconciliation and detection of potential medication-related harms.<sup>29</sup> The study also demonstrated that over a nine-week period, 535 medication reviews were provided virtually, identifying 151 medication-related issues or recommendations.

In 2020, the Western Australian Country Health Service (WACHS) TeleChemotherapy Cancer Team were awarded the SHPA Hospital Team of the Year Award. Patients previously needed to travel to Perth or Darwin to access cancer treatment, however, through this innovative service, the pharmacy team deliver cancer treatment to country communities despite COVID-19 challenges and border restrictions. Once admitted to the service, the WACHS Senior Cancer Services Pharmacist follows up with the prescribing oncologist to ensure the pre-printed chemotherapy prescription chart, pharmacist's clinical review and appropriateness of treatment is approved in a timely fashion to support the logistical challenges of the right medication at the right time. Once this validation process is complete, the regional pharmacist/pharmacy team complete the ordering of medication and dispensing as well as supporting best possible medication history capture.

SHPA believes that although virtual pharmacy services forgo some benefits of face-to-face services, they can improve patient access to healthcare services and adherence to treatments. Patients should have the same access to clinical pharmacy services irrespective of geographical location and given adequate funding, virtual pharmacy services could have a role in facilitating this.



#### References

<sup>1</sup> SHPA Committee of Specialty Practice in Clinical Pharmacy. (2013). SHPA Standards of Practice for Clinical Pharmacy Services. Journal of Pharmacy Practice & Research, 43(No. 2 Supplement), S1-69

<sup>2</sup> Dooley, M. J., Allen, K. M., Doecke, C. J., Galbraith, K. J., Taylor, G. R., Bright, J., Carey, D. L. (2004). A prospective multicentre study of pharmacist-initiated changes to drug therapy and patient management in acute care government funded hospitals. British Journal of Clinical Pharmacology, 57(4), 513-521. doi:10.1046/j.1365-2125.2003.02029.

<sup>3</sup> Australian Commission on Safety and Quality Healthcare. (2018). Hospital-acquired complications. Available at: https://www.safetyandquality.gov.au/our-work/indicators-measurement-and-reporting/complications/hacs-faqs-and-resources

 <sup>4</sup> Australian Healthcare Associates. (2017). PBS pharmaceuticals in Hospitals: final report 2017. Available at: <u>https://www.pbs.gov.au/reviews/pbspharmaceuticals-in-hospitals-review-files/PBS-Pharmaceuticals-in-Hospitals-Review.pdf</u>

 <sup>5</sup> Australasian College for Emergency Medicine. (2022). State of Emergency 2022. Available at: https://acem.org.au/getmedia/81b2f4f8-c0f2-46a0-86c1-64b7d1d311c2/State-of-Emergency-D32-MSTC

<sup>6</sup> Australian Medical Association. (2022). Ambulance Ramping Report Card. Available at: <u>https://www.ama.com.au/articles/ama-ambulance-ramping-report-card</u>

<sup>7</sup> Welch, S., Currey, E., Doran, E., Harding, A., Roman, C., Taylor, S., Thomas, A. and Munro, C. (2019), Standard of practice in emergency medicine for pharmacy services. Journal of Pharmacy Practice and Research, 49: 570-584. <u>https://doi.org/10.1002/jppr.1627</u>

<sup>8</sup> Taylor S., Welch S., Harding A., Abbott L., Riyat B., Morrow M., Lawrence D., Rodda S., Heward S. (2014). Accuracy of general practitioner medication histories for patients presenting to the emergency department. Aust Fam Physician. 2014 Oct;43(10):728. PMID: 25286433.

<sup>9</sup> Patanwala, A.E., Hays, D.P., Sanders, A.B., Erstad, B.L. (2011), Severity and probability of harm of medication errors intercepted by an emergency department pharmacist. International Journal of Pharmacy Practice, 19: 358- 362. <u>https://doi.org/10.1111/j.2042-7174.2011.00122.x</u>

<sup>10</sup> NSW Government. (2023). Response: Inquiry into the impact of ambulance ramping and access block on the operation of hospital emergency departments in New South Wales. Available at: <u>https://www.parliament.nsw.gov.au/Icdocs/inquiries/2892/Government%20response%20-%20PC%202%20-%20Ambulance%20ramping.pdf</u>

<sup>11</sup> Tong E.Y., Mitra B., Yip G.S., Galbraith K., Dooley M., PPMC Research Group. (2020). Multi-site evaluation of partnered pharmacist medication charting and in-hospital length of stay. British Journal of Clinical Pharmacology; 86(2): 285-90. <sup>12</sup> Roman C.P., Dooley M.J., Mitra B. (2018). Roles of the emergency medicine pharmacist: A systematic review, American

Journal of Health-System Pharmacy; 75,11: 796–806, <u>https://doi.org/10.2146/ajhp170321</u> <sup>13</sup> Monash University. (2021). Acute stroke treatment improved by adding emergency pharmacist to the team. Available at: <u>https://www.monash.edu/medicine/news/latest/2021-articles/acute-stroke-treatment-improved-by-adding-emergency-pharmacist-to-the-team</u>

pharmacist-to-the-team <sup>14</sup> SHPA. (2022). Submission on the Consultation Draft - National Medicines Policy. Available at: <u>https://shpa.org.au/publicassets/779882a7-819a-ec11-90fe-00505696223b/shpa\_submission\_on\_the\_consultation\_draft -</u> national\_medicines\_policy\_mar2022.pdf

<sup>15</sup> SHPA. (2021). Response to the Review of the Efficient Funding of Chemotherapy (EFC) Program Discussion Paper. Available at: <u>https://shpa.org.au/publicassets/e43b419a-b484-ec11-80e0-</u>

005056be03d0/shpa\_response\_to\_the\_review\_of\_the\_efc\_program\_discussion\_paper\_jul2021.pdf <sup>16</sup> SHPA. (2022). Submission to Review of Pharmaceutical Reform Agreements. Available at:

<sup>10</sup> SHPA. (2022). Submission to Review of Pharmaceutical Reform Agreements. Available at:

https://shpa.org.au/publicassets/89e22a0e-37b5-ec11-9100-00505696223b/shpa\_submission\_to\_review\_of\_pra\_mar2022.pdf <sup>17</sup> Victorian Department of Health. Hospital in the home. Available at <a href="https://www.health.vic.gov.au/patient-care/hospital-in-the-home">https://www.health.vic.gov.au/patient-care/hospital-in-the-home</a>

<sup>18</sup>Misko J., Jenkins B., Rawlins M. (2022). Navigating the Pharmaceutical Benefits Scheme: federal versus state government funding for high-cost medicines – a problem for public hospitals. Australian Health Review 46, 316-318.https://doi.org/10.1071/AH22002

<sup>19</sup> Fallis B.A., Dhalla I.A., Klemensberg J., Bell C.M. (2013) Primary Medication Non-Adherence after Discharge from a General Internal Medicine Service. Public Library of Science ONE 8(5): e61735.

<sup>20</sup> Doecke C. (2005). Editorial: equity of access to pharmaceuticals in Australia. The Journal of Pharmacy Practice and Research. 35(1):4.

<sup>21</sup> Ryan M. (2011). Time for a single system for funding medicines. The Journal of Pharmacy Practice and Research. 41(1):12-14

<sup>22</sup> Brown L., Payne A., Nepal B., Gong C., Cooper G. National Centre for Social and Economic Modelling. (2010). Modelling Options for the Public Funding of Hospital Medicines in Australia. Accessed at:

https://www.researchgate.net/publication/325710081 Modelling Options for the Public Funding of Hospital Medicines in A ustralia The Current System And Proposals For Reform Report Summary Prepared By Modelling Options for the Public c\_Funding\_of\_Hospital\_



<sup>23</sup> Centre for Online Health. Telehealth and coronavirus: Medicare Benefits Schedule (MBS) activity in Australia. Available at: <a href="https://coh.centre.uq.edu.au/telehealth-and-coronavirus-medicare-benefits-schedule-mbs-activity-australia">https://coh.centre.uq.edu.au/telehealth-and-coronavirus-medicare-benefits-schedule-mbs-activity-australia</a>. Cited 18/07/23.
 <sup>24</sup> The Society of Hospital Pharmacists of Australia. (2022). Pharmacy Forecast Australia 2022. Available at: <a href="https://shpa.org.au/publicassets/36f9b509-04fc-ec11-9106-">https://shpa.org.au/publicassets/36f9b509-04fc-ec11-9106-</a>

00505696223b/Pharmacy%20Forecast%20Australia%202022%20Full%20Report.pdf?4d171d0a-84fd-ec11-9106-00505696223b

<sup>25</sup> Livori A.C, Bishop J.L, Ping S.E, Oqueli E., Aldrich R., Fitzpatrick A.M., Kong D.C.M. (2021). Towards Optimising care of regionally-based cardiac patients with a telehealth cardiology pharmacist clinic (TOPCare Cardiology). Heart Lung Circ 2021;30(7):1023-1030.

<sup>26</sup> Sri-Ganeshan, M., Mitra, B., Soldatos, G., Howard, M., Goldie, N., McGee, F., Nehme, Z., Underhill, A., O'Reilly, G.M., Cameron, P.A. (2023), Disposition of patients utilising the virtual emergency department service in southeast region of Melbourne (SERVED-1). Emergency Medicine Australasia, 35: 553-559. https://doi.org/10.1111/1742-6723.14157
 <sup>27</sup> Australian Healthcare Associates. PBS pharmaceuticals in Hospitals: final report 2017. Available at: https://www.pbs.gov.au/reviews/pbspharmaceuticals-in-hospitals-review-files/PBS-Pharmaceuticals-in-Hospitals-Review.pdf

<sup>28</sup> Western New South Wales Local Health District. (2021). Virtual Clinical Pharmacy Service. Available at: https://aci.health.nsw.gov.au/ie/projects/virtual-clinical-pharmacy-service

<sup>29</sup> Allan J., Nott S., Chambers B., Hawthorn G., Munro A., Doran C., Oldmeadow C., Coleman C., Saksena T. (2020). A stepped wedge trial of efficacy and scalability of a virtual clinical pharmacy service (VCPS) in rural and remote NSW health facilities. BMC Health Services Research 20, 373. <u>https://doi.org/10.1186/s12913-020-05229-y</u>

