



19 March 2021

The Hon Peter Gutwein MP  
Premier and Treasurer  
Government of Tasmania  
Level 9, 15 Murray Street  
Hobart TAS 7001

Dear Minister Gutwein

**RE: Tasmania Budget 2021-22 submission**

The Society of Hospital Pharmacists of Australia (SHPA) is the national, professional, for-purpose organisation for over 5,000 leading pharmacists and pharmacy technicians working across Australia's health system, advocating for their pivotal role improving the safety and quality of medicines use. The vast majority of Directors of Pharmacy and Chief Pharmacists who lead hospital pharmacy departments are SHPA members. SHPA's President, Peter Fowler is also the first Tasmanian to lead our organisation.

SHPA commends the Tasmanian Government on its committed and swift response to the COVID-19 pandemic which has tested the Tasmanian healthcare system. Hospitals in particular, were presented with many challenges however, the learnings have created opportunities for improving hospital readiness to support the community through future adversities. As highlighted in the Tasmanian Government's white paper on *Delivering Safe and Sustainable Clinical Services*, better utilisation of the current health workforce is key to providing a more efficient overall health service. This includes the introduction of new models of care and the use of the full range of the health workforce's skills and expertise as a means of achieving this outcome.

SHPA applauds the Tasmanian Government on their investment in medication safety strategies recommended in SHPA's 2020-21 submission to the Tasmanian Budget. This includes the implementation of a Partnered Pharmacist Medication Charting (PPMC) model in all acute public hospitals in Tasmania and the replacement of standard intravenous infusion pumps in Tasmania's public hospitals with smart pumps.

PPMC utilises the hospital pharmacy workforce's expertise in medication management to improve efficiencies by reducing medication errors and length of hospitalisation whilst allowing doctors to focus on other clinical duties. Preliminary results from the implementation of PPMC at the Royal Hobart Hospital have been excellent. Prior to the introduction of PPMC at the RHH, 66% of patients had at least one error on their admission medication chart. Since the Tasmanian Government commenced PPMC at the RHH, this number has fallen to 0% for patients who received PPMC.

The implementation of smart pumps means that Tasmanian's now have access to the gold standard for reducing the incidence of serious medication errors due to injectable medication administration.

SHPA welcomes the opportunity to provide input to the 2021-2022 Tasmanian Government Budget Consultation Process. SHPA's attached submission addresses ways in which the Tasmanian Government can close the loop on medication safety and address the remaining issues that pose a risk to patient safety and health outcomes. Five specific areas for investment are highlighted that will ultimately support the Tasmanian Government in achieving its strategic plan. These five areas also dovetail with many recommendations of the March 2021 Final Report by Premier's Economic & Social Recovery Advisory Council with respect to health services, employment and jobs growth, and skills training.



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SHPA's submission recommends the **utilisation of ward-based pharmacy technicians in the implementation of a Bedside Medication Management (BMM) model in all acute public hospitals in Tasmania**. The introduction of this support role aligns with Domains 5 and 7 of the Strategic Workforce Framework and will allow nurses to spend less time undertaking administrative tasks, and spend more time on clinical activities that improve patient care. BMM will also reduce delays in medication administration, which are commonplace in Tasmanian hospitals and which lead to delayed recovery and prolonged hospitalisation.

Tasmania's white paper on *Delivering Safe and Sustainable Clinical Services* prioritises technology as a means to improving quality, safety, effectiveness and efficiency of the health care system. The SHPA submission recommends the **investment in a statewide digital health strategy and a 'closed loop' electronic medication record system across Tasmania's hospitals**. This recommendation aligns with the priorities identified in the document for investment of eHealth funding to ensure medications are used safely and cost effectively through enhanced Electronic Medication Management. SHPA's submission also recommends a **Pharmacist-led Opioid Stewardship service to be implemented in all Tasmanian principal referral hospitals**. This is a new model of care utilising the expertise of the pharmacy workforce in tackling the looming opioid crisis. It has been trialled in other states with significant success in reducing inappropriate opioid use. This recommendation also addresses Domain 5 of Tasmania's Strategic Workforce Framework, Build Capability and Capacity to Work in New Ways.

SHPA's submission recommends **extending the investment in smart pumps to ensure resources are available to review and maintain the drug library following the implementation period**. This will capitalise on the Tasmanian Government's investment into smart pumps by ensuring it remains up-to-date and continues to improve the safe use of high-risk medicines.

The final recommendation in the SHPA submission is the **investment in hospital pharmacy workforce recruitment and retention strategies**, a means to build the hospital pharmacy workforce capacity to deliver care as outlined in the Tasmanian Role Delineation Framework and ultimately provide patients with better health outcomes in an acute setting.

If you would like any further information about hospital pharmacy, or this submission, please do not hesitate to contact Jerry Yik, A/g General Manager, Advocacy and Leadership on [jyik@shpa.org.au](mailto:jyik@shpa.org.au) and we can arrange a meeting with myself and SHPA President Peter Fowler to discuss medicines management in Tasmania.

Yours sincerely,



Michelle Paine  
SHPA Tasmanian Branch Chair

CC: The Hon Sarah Courtney MP, Minister for Health, Minister for Women



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# Submission to Tasmanian Budget 2021-2022 consultation

## 1. Implementation of a ward-based pharmacy technician-led Bedside Medication Management system across Tasmanian public hospitals to improve medication supply and nursing time productivity.

Bringing Tasmanian hospitals into line with other Australian states, implementing a bedside medication management (BMM) supply system would result in safer care for inpatients. This contemporary medication management and supply system increases the productivity of the nursing workforce as less time is spent on obtaining supplies of medicines, so they can spend more time on clinical activities that improve care. The urgent and dire need to better utilise the current health workforce's skills and expertise as a means of providing a more efficient overall health service, has never been clearer in light of the Tasmanian hospitals' recent experiences of managing a global pandemic.

Pharmacy technicians are qualified and trained to provide a range of pharmacy services in hospitals. As pharmacists' roles have evolved to allow more time for clinical activities and direct patient care, pharmacy technician roles have also expanded to support medication management functions on hospital wards. In many states, hospitals have ward-based pharmacy technicians who undertake traditional nursing administrative roles associated with medication storage and supply.

The role of ward-based pharmacy technicians in the delivery of the BMM model, is to co-ordinate and streamline the supply of medications, coordinate and maintain appropriate storage of medications, as well as to remove ceased and unwanted medications from patient care areas. This ensures the timely supply of newly initiated medications, and reduces the risk of administration of expired or incorrect medications.

Evaluations of limited BMM programs by pharmacy ward technicians in Tasmanian hospitals have demonstrated a 75% reduction in inpatients missing out on doses of prescribed medications, and a 44% reduction in inpatients experiencing delayed treatment. These omissions of prescribed medications can delay recovery, prolong hospital admissions and place patients at higher risk of potentially serious healthcare events such as venous thromboembolisms or cardiac arrest. The implementation of pharmacy ward technicians also demonstrated improved nursing productivity, less medication administration errors by nurses and achieved hospital efficiencies and savings that can contribute to reducing length of stay. An independent evaluation of productivity gains has been undertaken by the Tasmanian Health Service utilising local data obtained from piloting BMM at the Royal Hobart Hospital. This independent report has identified that adoption of BMM across Tasmania's acute hospitals will reduce the time that nurses spend in administrative tasks associated with medication supply by 1,526 hours each week (with the number expected to actually be higher once the additional beds in K block are accounted for). Given the immense pressures faced by nursing staff due to vacancies and roster gaps, it is not appropriate that 1,526 hours of nursing time each week are spent undertaking tasks which could be performed instead by pharmacy technicians. This 1,526 hours of nursing time per week could be directed instead towards safe and timely patient care.

The use of a pharmacy technician workforce also creates career and employment opportunities for Tasmanians. Currently, a nurse with an undergraduate qualification must perform these administrative medication tasks. A pharmacy technician holds a TAFE-level qualification (Cert III or Diploma), creating a career pathway for Tasmanians who wish to be involved in medication management, but not undertake an undergraduate pharmacy or nursing degree.

Aligning with the Tasmanian Premier's PESRAC report, the THS could partner with TasTAFE or the University of Tasmania to offer local training pathways for pharmacy technicians.

**Cost of investment: \$2.8 million per annum (additional 29 pharmacy technicians and associated training to support provision of bedside medication management and supply in all four Tasmanian major hospitals)**



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## 2. Invest in a statewide digital health strategy and implement a 'closed loop' electronic medical record across Tasmania's hospitals to improve safety and quality patient care

The safety and quality of care provided in Tasmanian hospitals would be greatly improved by implementing a state-wide 'closed loop' electronic medical record (EMR) as part of a statewide digital health strategy. EMRs are in the process of being implemented all across other Australian jurisdictions, as they improve safety, efficiency and quality of care by enhancing clinical decision support and improving handover of care both within and beyond the acute hospital setting. However, Tasmania is the only jurisdiction that does not have a digital health strategy. Investment into a digital health record and an EMR would also align Tasmania with the National Digital Health Strategy<sup>1</sup>.

At present, medication management systems implemented in Tasmanian Hospitals only partly integrate and provide limited support for the various processes necessary for managing the communication of information required for effective and safe medicines management. At key points it is necessary for clinicians to transcribe critical information relating to medicines, their dosing and their administration details, to paper-based systems. Later, this information is transcribed back to the electronic environment to manage subsequent activities. In addition, the lack of infrastructure necessitates certain activities to be office based and away from the patient, where they would ideally be performed. As well as being inefficient, these limitations increase the risk of patient harm by introducing error associated with the critical act of transcribing medication details.

Australian research has shown that 12% of handwritten discharge summaries and 13% of electronic discharge summaries (where there was partial implementation of EMR) had an error<sup>2</sup>. The most common errors were omission of medicines, or incorrect addition of medicines – likely due to inadequate documentation.

EMRs that are integrated and interoperable with hospital pharmacy dispensing software will enable a 'closed loop' electronic medication management (EMM) system, to ensure inpatients are administered the right medicine, in the right formulation, right dosage, at the right time, and via the right route of administration. They have the potential to reduce medication errors, other clinical errors, and improve medication safety by eradicating the need for transcription. International reviews found that a change from paper-based medicines ordering to electronic ordering of medicines in intensive care units resulted in an 85% reduction in error rates<sup>3</sup>. This is timely given that changes to activity-based funding mean that hospitals will receive negative funding adjustments from sentinel events arising from medication administration error and the incidence of medication-acquired complications.

The estimated cost of funding an EMR would equate to \$100 million over the span of 5 years, which covers not only the capital costs, but also the extensive consultation and clinician training to ensure a smooth transition to EMRs.

**Cost of investment: \$100 million over the next 5 years (to cover software, staff training and employment of EMM system clinicians, including pharmacists)**



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### 3. Implement a Pharmacist-Led Opioid Stewardship Program at Royal Hobart Hospital to reduce opioid harms for Tasmanians post-surgery

With the increasing trend of misuse of prescription opioids in Tasmania and Australia overall<sup>4</sup>, opioid stewardship programs in hospitals show great potential for reducing harm when supported by adequate funding and management. Opioid analgesic prescribing in Tasmania has increased almost seven-fold from around 19,300 scripts in 1999 to around 127,400 scripts in 2010, despite Tasmania's population remaining relatively static during this period. Evidence indicates that one-third of adults receiving long-term opioid therapy have had their first opioid prescription from a surgeon, indicating that postsurgical prescribing in hospitals is an important point of intervention. Investment in opioid stewardship programs can reduce the incidence of opioid-related harm stemming from opioid initiation in hospitals.

Opioid stewardship involves coordinated interventions to improve, monitor and evaluate the use of opioids in patients for acute, chronic or acute on chronic pain. Hospital pharmacists are experts in medicines management and utilise their knowledge to recommend appropriate pain medicines selection and dosing to inform appropriate and safe prescribing by doctors.

Tasmania's Department of Health document *A review of Opioid Prescribing in Tasmania: A Blueprint for the Future* outlines several recommendations to address the harms caused by opioids. A pharmacist-led Opioid Stewardship service in an acute setting aligns with several of these recommendations this includes; education of health practitioners in pain and opioid management, support of appropriate acute pain management and opioid risk management strategies and ensures that a non-opioid prescribing specialist pharmacist is a central member of a multidisciplinary pain management team in a hospital.

The service would see 1 FTE Opioid Stewardship pharmacist and 0.2 FTE nurse working collaboratively with prescribers, pharmacists, nurses and patients in each acute hospital region (South, North, and North West). Similar to the well-established antimicrobial Stewardship model, opioid stewardship is backed by strong research showing effective risk mitigation for patients at risk of opioid harm. This approach is also supported by PainAustralia, the national peak body working to improve the quality of life of people living with pain, their families and carers, and to minimise the social and economic burden of pain.

The pharmacist-led program has been trialled in Victorian and Queensland hospitals with successful outcomes obtained. An audit after two years of implementation in Victoria demonstrated lower quantities of oxycodone dispensed to patients and increased analgesic weaning in hospital and inclusion in medical discharge summaries. Pharmacist-led opioid de-escalation in orthopaedic patients was shown to reduce opioid requirements by 25%. The Opioid Prescribing Toolkit developed in Queensland further highlights the success of an opioid stewardship where the average number of oxycodone tablets supplied on discharge decreased from 19.9 to 11 tablets. This was matched with an increase in the proportion of patients having a de-escalation plan handed over to their general practitioner.

**Cost of investment: \$450,000 per annum (covering 3.0 EFT x Allied Health Professional Level 4 Hospital Pharmacist plus nursing and operational support)**



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#### 4. Maintaining the Government's investment in Smart Pumps by ongoing support for the Tasmanian Smart Pump Medication Library

Due to the risk of severe medication-related incidents stemming from incorrect dose and infusion rates, most Australian hospitals have invested in drug libraries embedded in the memory of their smart pumps, which significantly reduce the incidence of intravenous medication administration errors.

Intravenous medicines are often high-risk medicines, including opioid medicines, chemotherapy medicines and lifesaving antimicrobial medicines. Incorrect dosing or infusion rate errors with these medicines can lead to significant harm and sometimes catastrophic patient outcomes.

The Tasmanian Government has recently rolled out smart pumps across all Tasmania hospitals replacing standard infusion pumps, as recommended in SHPA's 2020-21 Tasmanian Budget submission. There is a vast amount of Australian and International evidence showing the significant benefit of implementing smart pumps with a fully developed drug library in reducing serious patient harm. Funding for 3.2 FTE senior pharmacists was provided for 12 months to develop a comprehensive drug library based on local and best practice principles. This project is currently under way. However, there has been no guarantee of ongoing funding to regularly review and maintain the drug library.

Drug libraries are a list of medications (protocols) stored in the smart pump's memory and are a key tool to prevent medication errors. Each protocol provides a safety net to catch errors in prescribing and programming of infusion pumps. The efficacy of the safety net relies on the protocols being kept up to date with current medicines information, contemporary practice and changes in medicines availability. It is also imperative to have appropriately trained staff available to edit the protocols in response to any serious incidents that may arise.

**Cost of investment: Approximately \$130,000 per annum (covering 1.0 EFT x Allied Health Professional Level 4 Hospital Pharmacist)**



## 5. Investment in hospital pharmacist workforce recruitment and retention strategies

SHPA recommends investment in hospital pharmacist workforce recruitment and retention strategies, to build capacity to deliver care as outlined in the Tasmanian Role Delineation Framework, and to attract the best pharmacists across Australia to Tasmanian hospitals.

This can be potentially achieved by partnering with TasTAFE to develop a local training pathway for Pharmacy Technicians; and by further partnerships between the THS and University of Tasmania to support undergraduate and postgraduate pharmacy professional development including:

- Extend Foundation Residency programs for early career Tasmanian hospital pharmacists to all four Tasmanian public hospitals to ensure young pharmacists trained by the Tasmanian public hospital system remain in this pipeline. SHPA commends the Tasmanian Government for implementing Foundation Residency programs at the RHH and LGH, and believes that extending this to the North West will establish an important workforce development and retention strategy in the NWRH and MCH.
- Extend Advanced Training Residency programs to additional specialties at the Royal Hobart Hospital where there is specialist capacity. SHPA commends the Tasmanian Government for being an 'early adopter' of Advanced Training Residencies in Pharmacy Leadership, and believes that extending this training opportunity to disciplines such as Critical Care, Oncology, and Paediatrics will improve workforce development and patient care.

The first objective outlined in the Tasmanian Government's *Strategic Plan 2019-2022*<sup>5</sup> is to have a healthy, diverse, responsive and accountable workforce. In light of recent COVID-19 experiences and associated medication shortages, investment in the hospital pharmacist workforce is essential.

The rise in chronic diseases combined with an ageing population with complex medication regimens places a growing burden on the Australian health system. Despite recent expenditure there remains an increased and unmet demand for hospital services, such as clinical pharmacy services. The increased demand and service pressure is particularly acute in north-western Tasmania, where recruitment is chronically difficult.

The SHPA Standards of Practice for Clinical Pharmacy Services<sup>6</sup> recommend one hospital pharmacist to every 20 to 30 patients to ensure safe high-quality medicines management. This includes providing inpatients with medication reconciliation on admission and discharge, daily medication chart review and patient counselling. The value of clinical pharmacy services is well documented in literature, with an Australian economic analysis indicating a \$23 return for every \$1 spent on clinical pharmacy services<sup>7</sup>.

SHPA recommends the Tasmanian government undertake a service gap analysis with the four Tasmanian hospital pharmacy departments to inform and devise workforce recruitment and retention strategies to ensure the sickest Tasmanians are able to receive appropriate care. SHPA has developed the Foundation Residency program and Advanced Training Residency program to support pharmacy workforce development. To capitalise on the current investment of eighteen hospital pharmacy interns annually, the Tasmanian government should invest in SHPA Residency programs to ensure young pharmacists trained by the Tasmanian public hospital system remain in this pipeline. The Foundation Residency program can be extended to all four Tasmanian hospitals, whilst the Advanced Training Residency program can be provided by the Royal Hobart Hospital, or via structured training at mainland hospitals if there is a skills shortage.

**Cost of investment: \$150,000 one-off to engage a consultant to develop a Tasmanian Hospital Pharmacy Workforce Strategy and to enter into partnerships with TasTAFE and UTAS where appropriate. \$200,000 ongoing to extend Pharmacy Residency training to the North West and to extend the range of advanced pharmacy training opportunities in Tasmania.**



## References

- <sup>1</sup> Australian Digital Health Agency. (2017). *Safe, seamless and secure: evolving health and care to meet the needs of modern Australia. Australia's National Digital Health Strategy*. Canberra
- <sup>2</sup> Tong, E., Roman, C., Mitra, B., S Yip, G., Gibbs, H., Newnham, H., . . . J Dooley, M. (2017). *Reducing medication errors in hospital discharge summaries: A randomised controlled trial* (Vol. 206).
- <sup>3</sup> Prgomet, M., Li, L., Niazkhani, Z., Georgiou, A., & Westbrook, J. I. (2017). Impact of commercial computerized provider order entry (CPOE) and clinical decision support systems (CDSSs) on medication errors, length of stay, and mortality in intensive care units: a systematic review and meta-analysis. *Journal of the American Medical Informatics Association*, 24(2), 413-422. doi:10.1093/jamia/ocw145
- <sup>4</sup> Kovitwanichkanont, T., & Day, C. A. (2018). Prescription Opioid Misuse and Public Health Approach in Australia. *Substance Use & Misuse*, 53(2), 200-205.
- <sup>5</sup> Tasmanian Government. (2019). Strategic Plan 2019-2022. Department of Premier and Cabinet. Hobart
- <sup>6</sup> SHPA Committee of Specialty Practice in Clinical Pharmacy. (2013). SHPA Standards of Practice for Clinical Pharmacy Services. *Journal of Pharmacy Practice and Research*, 43(No. 2 Supplement), S1-69.
- <sup>7</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.x

