



Home Medicine Reviews: Recent changes and potential implications

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ISSN 1839-6348

Issue 39
September 2014

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Earlier this year, the Pharmacy Guild of Australia announced the restructure of the Home Medicine Review (HMR) program. The new funding provision of this program requires a minimum two-year interval between each review conducted for a specific patient. Significant debate has arisen about the potential implications this will have on all stakeholders, particularly consumers, and on the incidence of medication errors and use of health care resources. The Pharmacy guild has announced that the changes will "ensure the ongoing viability" of the program and as part of this they will also work to identify patients who will most benefit from HMR services.¹

This *RESEARCH ROUNDup* provides a brief overview of the current evidence of the benefits and limitations of HMRs and discusses cohorts of patients who might be targeted to maximise HMR benefits.

Home Medicine Review program: overview

Home Medicine Reviews (HMRs) assess a patient's use of medicines. The main objective is to optimise quality use of medicines and reduce drug-related problems, including adverse drug effects (ADEs). Initiated by general practitioners (GPs) and facilitated by pharmacists, the program has been operational for over 12 years under Medicare.² Currently, the program is funded under the 2010 Fifth Community Pharmacy Agreement (5CPA) between the Commonwealth and the Pharmacy Guild, which extends until 2015.² Under the 5CPA, \$15.4 billion has been allocated to community pharmacists, \$663 million of which is for the delivery of professional services, including the HMR program.³ The HMR program specifically has an allocated budget of \$52.11 million.⁴

Rationale for the latest changes

Following the Pharmacy Guild's strategy in 2010 to increase HMR uptake a higher than anticipated spike in demand for HMRs was observed towards the end of 2012.⁴ By 2013, the HMR program had exceeded its allocated budget by \$4.2 million.⁴ Faced with finite resources and increasing demand, the most recent HMR changes were proposed to "ensure programme sustainability" by limiting HMR services and hence program spending.¹ Although much of the allocated \$52.11 million remains to be spent, the 5CPA is up for renegotiation next year, and given the Commonwealth's budgetary pressures, continual funding of HMRs is not guaranteed.⁴

Clinical benefits of the HMR program

The value of HMRs in improving patient safety through the minimisation of medication errors when targeted to patients at high risk has been demonstrated in retrospective cohort and implementation studies conducted in the Australian setting.^{5,6,7}

In Australia, a review of all hospital admissions studies highlighted that 2-3% (approximately 230 000) of admissions were medication-related.^{8,9} The associated annual costs of these ADE-related admissions (ADE-RAs) are estimated at \$1.2 billion.⁹ It is estimated that 50% of such admissions are preventable and that they account for up to 16% of emergency department admissions.¹⁰ The associated cost burden ADEs impose on primary care is uncertain, but observational studies of general practice activity have revealed that 11% of patients have

experienced an adverse drug reaction (ADR) within the previous six months, and 11% of these were categorised as severe.¹¹

A recent review of medication safety in Australia found growing evidence in the community for the benefits of multidisciplinary approaches to improving medication management including collaborative home medicines reviews.⁹ These benefits extend beyond the prevention and resolution of ADRs, and include the opportunity to educate, identify and resolve issues associated with suboptimal patient understanding of their medicines, underuse of medicines and untreated indications.^{2,5,12,13} HMRs have been shown to enhance the continuity of care between tertiary and primary care through medication reconciliation, thus improving the transition between hospital and community care, which is a risk factor for further hospitalisations.^{14,15}

Cost-effectiveness of the HMR program

The Value of Medication Reviews (VALMER) study, undertaken to assess the clinical and economic outcomes of HMRs in Australia, demonstrated minimal short-term (12 months) economic benefits associated with HMRs in the context of a broad range of patients. Specifically, although HMRs were associated with significant reductions in health care utilisation costs and improved quality of life, only negligible average net savings would be conferred within the short-term, and HMRs were not found to be cost-effective overall.² However, just 16% of VALMER patients accounted for most of the savings.² For VALMER study patients associated with savings in the upper quartile, the average calculated saving was \$632.15, versus an average HMR cost of \$323.80 (Guild final report VALMER 2009).² So although widespread use of HMRs has limited cost-effectiveness within the short-term, the targeted use of HMR for those patients most likely to benefit is likely to be cost-effective.

Patients who benefit most from HMRs

Within the literature, numerous Australian studies have been conducted that highlight distinct patient cohorts for whom provision of HMRs delivers significant health care savings, accompanied by improved patient outcomes.^{6,7,16}

This includes patients treated with warfarin, one of the leading medicines associated with hospital ADE-RAs.⁷ Patients provided with a HMR had a 79% reduction in their likelihood of next hospitalisation related to warfarin-associated bleeding, between

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two- and six-months post-HMR.⁷ After six months, this benefit was not sustained. This indicates the need for more frequent monitoring, which may potentially include six-monthly reviews.⁷ Such patients who are now faced with restricted access to HMRs may soon be placed at greater risk of warfarin-associated bleeding hospitalisations.

Similarly, the application of HMRs to patients treated with heart failure medicines has been shown to be effective in delaying time to hospital readmission related to heart failure.⁶ Furthermore, numerous other medicines have been identified that increase the risk of hospital ADE-RAs, particularly for older people and these account for over 30% of hospital admissions in those aged 75 years and over.¹⁷

Such studies provide a foundation upon which policymakers and researchers can further build to better define which patients will gain the greatest benefit from HMRs at an acceptable cost.

Alternatives to the new program framework

HMR is by no means the only solution to preventing medication errors. Studies have demonstrated the potential value of post-discharge collaborative management programs for patients prescribed warfarin, whereby other interventions such as point-of-care International Normalised Ratio (INR) monitoring and warfarin education are integrated into the current HMR remuneration structure to promote the streamlined transition between tertiary and primary care.¹⁸

Another way to optimise the benefits from HMRs on health care savings is to improve the timely delivery of HMRs. This can delay time to next hospitalisation and reduce ADE-related GP visits, particularly for those who are discharged from hospital and classified at high risk of medication misadventure.¹⁵ A potentially viable model of facilitating this involves hospital-initiated medication reviews (HIMRs).¹⁵ Although there is funding planned under the 5CPA for HIMRs, the current lack of available funding has created difficulties in rolling out such programs.¹⁵

Conclusions

There is much debate to be had over the implications of these recent HMR program changes for certain cohorts of patients and health care resources. The recent restrictions represent a generalised approach; however, current evidence for effective implementation of HMR for those most likely to benefit at an acceptable cost suggests that this is unlikely to meet the needs of those at greatest risk for ADEs. Thus, perhaps it would be more reasonable to consider exemption of particular cohorts of patients from these restrictions, particularly where there is evidence indicating significant health care savings or clinical benefit associated with the provision of HMRs on a more frequent basis.

Although the current evidence does not provide stakeholders with all the answers about how best to restructure HMRs and whom to target, it does provide a solid basis on which to begin that process without unduly placing patients at risk.

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Acknowledgement: thank you to expert reviewer Professor Libby Roughead for her comments on a draft of this paper.