Pharmaceutical funding decisions must balance therapeutic innovation, opportunity costs and patient equity

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The complexity and pace of change in cancer medicine are both increasing rapidly. Early successes in areas of unmet need are widely reported, raising cancer patients’ hopes of cure or prolonged survival. The resultant clamour for access to these drugs challenges politicians and government agencies to quickly fund these drugs, often faster than standard drug evaluation and prioritisation processes allow, and when other countries fund them, the public pressure for New Zealand to do so increases further. The Pharmaceutical Management Agency of New Zealand (PHARMAC) has the unenviable task of prioritising competing claims from different patient groups, often based on still-developing evidence of benefit.

In this edition of the NZMJ, Wonder and Fisher challenge PHARMAC’s evaluation of newly developed agents for advanced melanoma, given the lack of other funded agents that prolong survival and the positive funding decisions made in Australia, Canada and the UK. They acknowledge the huge price of these new medicines and we applaud their call for the sponsors to develop realistic pricing proposals. However, they also suggest that New Zealand adopt alternate pathways to achieve earlier drug access, such as managed entry or patient access schemes. While the article raises many thought-provoking points, it is focussed on funding therapies for melanoma and thus fails to address larger, more complex issues.

Arguably, the raison d’être of PHARMAC—or any other Health Technology Assessment (HTA) agency—is the inescapable problem of opportunity costs: when you spend health dollars on one problem you cannot spend it on another. These are perhaps more starkly visible in New Zealand’s drug funding decisions because PHARMAC has a strictly capped yearly budget. However, the opportunity costs are not just in drug spending. PHARMAC has now announced that one of these immunotherapy drugs (nivolumab) will be funded from 1 July 2016 and another (pembrolizumab) from 1 September 2016. In this instance, the decision to fund immunotherapy for melanoma resulted in substantial unbudgeted costs to District Health Boards (frequent drug infusions, CT scans to monitor response, and management of patients and toxicities requiring more medical, nursing and pharmacy time); how this impacts on other health services is yet to be seen.

In the UK and Australia, where increased pharmaceutical costs can be met from regional healthcare spending or general government spending respectively, these opportunity costs may not be as immediately visible. This may allow decision makers more latitude to fund particular medicines. However, analysis of decisions by the UK’s National Institute of Care Excellence (NICE) and the Cancer Drugs Fund highlighted that many more Quality-Adjusted Life Years (QALYs) can be lost elsewhere in the health system. These lost QALYs represent avoidable deaths and suffering for real patients. The Cancer Drugs Fund also illustrates that bypassing established pathways to fund particular medicines raises drug prices and lends
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itself to funding of certain drugs for political expediency.4 Funding the “squeaky wheel” or rescuing the group currently in the public eye disrupts attempts at patient equity. For example, these immune checkpoint inhibitors have substantial activity in lung cancer, especially those related to smoking, but it is unlikely that the public would be as impassioned about funding them for this indication as they were for melanoma, or trastuzumab (Herceptin®) for breast cancer.

While it is valid therefore to ask how many lives are being lost because PHARMAC declines to fund a particular medicine, it is also valid to ask how many lives are being saved elsewhere by that decision.3–4 The percentage of gross domestic product spent on healthcare in New Zealand is low by OECD standards and has been falling in recent years, so it could be argued that the government ought to increase healthcare spending overall, and increase PHARMAC’s budget.5 However, it is likely that healthcare demand will always outstrip healthcare funding. In this context, PHARMAC lobbying the New Zealand Government for more funding may in fact do more harm than good in terms of opportunity costs. Similarly, framing the issue in terms of containing pharmaceutical expenditure versus saving lives may be a false dichotomy. A recent study commissioned by PHARMAC evaluated cancer medicines funded in Australia but not New Zealand in terms of clinically meaningful patient benefit—either improvement in progression-free survival or overall survival—using definitions from recent international research.6–7 Only a few drugs met these definitions of benefit, meaning PHARMAC had avoided spending a great deal of money on relatively ineffective (or cost-ineffective) medicines which it could spend elsewhere. Crucially, PHARMAC had funded effective medicines for prostate and kidney cancers that Australia had not. These issues are, of course, much more complex, and PHARMAC is required to keep a broad view across all health, rather than just on one disease at a time.

There is also concern internationally that the prices of new medicines—not only for cancer, but also diseases such as hepatitis C—are unsustainable. Even where the medicines are clinically effective—and even meet cost-effectiveness thresholds under the right conditions—the total budgetary impact may be more than health systems as varied as those in Australia and the US can afford.8,9 Even in the US—where comparative effectiveness and funding restrictions by public payers have been likened to ‘death panels’—Medicare has begun trying to control escalating cancer drug costs.10 Unless such efforts are successful and consistently applied, it is likely that rises in drug costs will exceed the ability of payers to increase pharmaceutical budgets. It is also worth noting that restricting or withdrawing access after a drug is in widespread use may generate substantial backlash, even if the initial promise for a particular indication is not borne out.11 Providing alternate access pathways whereby a drug gains funding with lower certainty of benefit may lock the payer into continuing to pay for the drug or make it more difficult to negotiate more favourable pricing at a later date.

Given that new drug pricing is unlikely to drop substantially in the near future, and demand will increase as our population ages and new health benefits for these drugs are demonstrated, should we be changing the HTA system in New Zealand to match that in other countries? PHARMAC recognised the need to change and recently consulted widely on reviewing its decision criteria; its newly-announced Factors for Consideration incorporate these many complexities.12 This new set of decision criteria is intended to ensure that the important decisions PHARMAC makes reflect our collective values. As it implements this new process it is vitally important that we, health professionals and consumer groups, help PHARMAC refine it further by continuing to engage with them, giving them a good perspective on the benefit of new medicines and challenging decisions we think are wrong. By doing so, we can advocate for those in need, while also ensuring that those who—for whatever reason—are less visible to the public gaze are not further disadvantaged in access to limited public health resources.

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