

A qualitative evaluation of general practitioners' perceptions regarding access to medicines in New Zealand

Zaheer-Ud-Din Babar,¹ Piyush Grover,² Rachael Butler,³ Lynne Bye,¹ Janie Sheridan¹

To cite: Babar Z-U-D, Grover P, Butler R, *et al.* A qualitative evaluation of general practitioners' perceptions regarding access to medicines in New Zealand. *BMJ Open* 2012;**2**:e000518. doi:10.1136/bmjopen-2011-000518

► Prepublication history for this paper is available online. To view this file please visit the journal online (<http://dx.doi.org/10.1136/bmjopen-2011-000518>).

Received 15 November 2011
Accepted 1 March 2012

This final article is available for use under the terms of the Creative Commons Attribution Non-Commercial 2.0 Licence; see <http://bmjopen.bmj.com>

¹School of Pharmacy, Faculty of Medical and Health Sciences, University of Auckland, Auckland, New Zealand

²Department of Pharmacy, Waikato Hospital, Hamilton, New Zealand

³School of Population Health, Faculty of Medical and Health Sciences, University of Auckland, Auckland, New Zealand

Correspondence to

Dr Zaheer-Ud-Din Babar;
z.babar@auckland.ac.nz

ABSTRACT

Objective: The objective of this study was to evaluate general practitioners' (GPs) perceptions regarding access to medicines in New Zealand.

Design: Qualitative.

Setting: Primary care.

Participants: GPs.

Main outcome measures: GPs' views and perceptions.

Results: GPs were of the view that the current range of medicines available in New Zealand was reasonable; however, it was acknowledged that there were some drugs that patients were missing out on. When considering the range of subsidised medicines available in New Zealand, some GPs felt that there had been an improvement over recent years. It was highlighted that unexpected funding changes could create financial barriers for some patients and that administrative procedures and other complexities created barriers in receiving a subsidy for restricted medicines. GPs also reported problems with the availability and sole supply of certain medicines and claimed that switching from a branded medicine to its generic counterpart could be disruptive for patients.

Conclusions: The research concluded that although there were some issues with the availability of certain drugs, most GPs were satisfied with the broader access to medicines situation in New Zealand. This view is to contrary to the situation presented by the pharmaceutical industry. The issues around sole supply, the use of generic medicines and the administrative barriers regarding funding of medicines could be improved with better systems. The current work provides a solid account of what GPs see as the advantages and disadvantages of the current system and how they balance these demands in practice.

INTRODUCTION

One of the aims of New Zealand's medicines policy is to ensure that New Zealanders have access to affordable medicines.¹ New Zealand has been successful in containing pharmaceutical costs, primarily via the policies of the Pharmaceutical Management Agency of New Zealand (PHARMAC).² PHARMAC is

ARTICLE SUMMARY

Article focus

- To evaluate GPs' perceptions regarding access to medicines in New Zealand.
- To identify GPs' views and perceptions regarding the role of PHARMAC within the New Zealand healthcare system.

Key messages

- GPs were of the view that the current range of medicines available in New Zealand was reasonable; however, it was acknowledged that there were some drugs that patients were missing out on.
- When considering the range of subsidised medicines available in New Zealand, some GPs felt that there had been an improvement over recent years.
- It was highlighted that unexpected funding changes could create financial barriers for some patients and that administrative procedures and other complexities created barriers in receiving a subsidy for restricted medicines.

Strengths and limitations of this study

- This is the first independent objective study covering GPs' perceptions regarding access to medicines issues in New Zealand.
- Findings from this study will form an essential component of any future research, which reviews New Zealand's current medicines policy.
- It will also help in developing strategies to better inform patients' access to medicines, with GPs being a large group of health professionals likely to positively affect patient knowledge and views.
- All GPs were working in a large metropolitan city in New Zealand—it is not known whether their views and experiences differ from colleagues working and living in small towns and rural locales.
- Also, only 19 of 150 contacted were interested in participating so this could be another source of bias in the study.

the New Zealand government agency that decides which medicines are subsidised. It was created in 1993 to ensure that New Zealanders get the best possible health

outcomes from money the government spends on medicines.³ PHARMAC manages drug costs by applying pharmacoeconomic techniques when selecting medicines and by promoting the use of generic medicines.^{4 5} It uses a capped national medicines budget, along with a variety of contractual arrangements with pharmaceutical companies that enables a company's medicine to be listed onto the Pharmaceutical Schedule and therefore enables access to subsidies for consumers. These contractual arrangements include rebates on list prices from PHARMAC, tendering for off-patent drugs and bundle agreements where PHARMAC may list expensive new drugs in its Pharmaceutical Schedule⁶ in return for the manufacturer discounting the price of other products it supplies.⁷ Most off-patent drugs listed in New Zealand's Pharmaceutical Schedule⁶ are supplied from one supplier under contract to PHARMAC (sole supply) and large price discounts are provided in exchange for exclusivity.⁷

In community settings, only drugs on the Pharmaceutical Schedule receive government subsidy.⁷ The government subsidy means that consumers who are New Zealand citizens or who have Permanent Residence make a co-payment (NZ\$3; US\$2.20) per prescription item) for each medicine listed in the Schedule. If the subsidy-level PHARMAC has set for a particular medicine is less than the price charged by the drug company, then patients pay an additional fee, known as 'manufacturers surcharge'. For the medicines that are not listed on the Schedule, consumers are required to pay the full price.

With an annual drug budget expenditure for subsidised medicines used in the community setting of NZ \$599 million in 2007,⁸ over 78% of all consumed medications are publicly funded in New Zealand. Although PHARMAC has played an important role in containing the pharmaceutical budget in New Zealand, in 2009, medicines expenditure was recorded as \$694 million a year and is expected to increase to NZ\$734 million by 2012.⁹⁻¹¹ Healthcare expenditure is a key concern for many countries and countries amend and form their policies on the basis of ongoing empirical research. General practitioners (GPs) form a vital part in this research process because they are key stakeholders in the access to medicines process. GPs are the main prescribers in New Zealand and prescribe over 44 million prescriptions annually.¹² They influence the 'demand side' of cost, and knowing what they think about 'access to medicines' is important when exploring the impact of a country's medicines policy. Although very little independent research is available on GP views on access to medicines in New Zealand,¹³ some research has been conducted by the pharmaceutical industry. One industry study of a sample of 528 GPs in New Zealand revealed GPs' dissatisfaction over the current system, and it was observed that a large majority (75%) of GPs supported a general review of PHARMAC.¹⁴ It was also reported that GPs felt that PHARMAC was 'too

budget oriented' rather than patient focused, its decision making 'lacks transparency' and New Zealand's access to medicines 'lags behind other comparable countries'. Furthermore, the study also found that 71% of clinicians rated New Zealanders' access to medicines as 'poor' when compared with Australia.¹⁴ PHARMAC has undertaken its own research¹⁵ exploring health professionals' perceptions about how it functions (n=23), but only investigated PHARMAC's operational abilities and did not assess issues of access, availability and affordability of medicines.^{13 16}

While the New Zealand government promotes affordable medicines,^{3 4} the media has portrayed New Zealanders as having problems regarding accessing medicines.¹⁷ Furthermore, it has been argued that 'newer' and 'more effective' medicines available abroad, such as risedronate, atomoxetine, galantamine and montelukast, are not available in New Zealand.¹⁷⁻¹⁹

Hence in this context, the current study was undertaken. The key aims of the study were to evaluate GPs' perceptions regarding access to medicines in New Zealand and to identify GPs' views and perceptions regarding the role of PHARMAC within the New Zealand healthcare system.

METHODS

A qualitative approach was adopted for the study, which was undertaken in November 2008 to January 2009 in Auckland, New Zealand. Auckland is New Zealand's largest city, with approximately 1.25 million people residing in the greater Auckland area (about one-third of the population of the whole country).²⁰ The Auckland region is covered by three District Health Boards (DHBs), of which there are a total of 20 in New Zealand. DHBs are responsible for providing, or funding the provision of, health and disability services in their district.²¹ A list of GPs practicing within the greater Auckland region was obtained from the Department of General Practice and Primary Health Care at the University of Auckland. GPs were stratified according to the DHB in which they were located (n=360 for Auckland DHB; n=393 for Counties Manukau DHB; n=482 for Waitemata DHB). Fifty GPs were randomly selected from each DHB list and were sent information regarding the study (n=150 in total). This included a participant information sheet, which provided an overview of the research study and processes, and a research consent form (with a freepost envelope) that GPs could complete and return to the research team to indicate their interest in participating.

A series of face-to-face, semi-structured interviews was undertaken. Questions were developed following a review of the relevant literature and to explore GPs' perceptions regarding access to medicines in New Zealand and views and perceptions of the role of PHARMAC in relation to medicines access in New Zealand (a detailed list of the questions is attached in [table 1](#)). Demographic information, including age,

Table 1 List of questions utilised in interviews with general practitioners (GPs)

| | |
|---|--|
| Domain 1—GPs' perceptions regarding access to medicines and high cost drugs in New Zealand | |
| A | What is your understanding of the 'access to medicines' in New Zealand? |
| B | In your opinion what is the current state of access to medicines and high cost drugs in New Zealand and why? |
| C | If and how has this access changed in the past few years? |
| D | What role do GPs play in determining the access to medicines in New Zealand? |
| E | How do you compare the access to medicines and high cost drugs in New Zealand with that of other developed countries? |
| F | The current notion by drug industries is that access to medicines in New Zealand is inadequate. What is your opinion? |
| G | Do you believe high costing medicines are readily accessible in New Zealand? Are there any examples you would like to mention? |
| H | Are there examples of medicines you would like to see being available in New Zealand? |
| Domain 2—Views and perceptions regarding the role of Pharmac (Pharmaceutical Management Agency of New Zealand) to access of medicines in New Zealand. | |
| A | What is your understanding of the role of Pharmac in New Zealand healthcare system? |
| B | Do you think New Zealand needs an agency like Pharmac? Why? |
| C | Pharmac has been under immense public scrutiny. Is it justified? |
| D | How successful has Pharmac been in achieving its aims? |
| E | How does Pharmac influence the access to medicines for New Zealanders? |
| F | How do you find the decision making process undertaken by Pharmac? |
| G | Does Pharmac have sufficient representation from various health professionals and consumer groups? |
| H | What are your views on communication between Pharmac and GPs? |

gender, practice type and length of time practicing, was also recorded for each GP at the time of the interview. The interview guide was piloted with two health professionals prior to the fieldwork commencing and further reviewed (and amended) following the completion of the first two interviews. Interviews took place at the GP's workplace. Seventeen interviews were conducted, at which stage data saturation was reached. Most were around 35 min in duration (range: 23–41 min), and all were audiotaped. GPs who took part in the study were offered a \$50 book voucher in recognition of their contribution to the research.

All interviews were transcribed verbatim with the full transcripts utilised in the subsequent analysis process. Analysis of the data was undertaken by the research team via a staged process. In the first instance, transcripts were read and notes were taken regarding key themes and issues. Following this, a basic coding framework was developed, and interview data were coded, with the assistance of the NVIVO software programme. Lastly, a series of group analysis sessions involving the senior members of the research team were conducted, whereby further refinement of the themes was undertaken. Each 'quote' from within each theme was read by a member of the research team and a brief interpretation of the quote written on a 'post-it' note. These were then placed on a board and moved around into subthemes.

Ethical approval for the study was gained from the University of Auckland Human Participants' Ethics Committee (Reference: 2008/445).

RESULTS

A total of 19 GPs returned a research consent form and 17 of those were interviewed. Over half the participants

(n=10) had been practicing as a GP for more than 20 years, and 13 were men. GPs were recruited from each of the DHBs, although the majority were based within Counties Manukau DHB (n=10). An overview of the demographic characteristics of the sample is provided in table 2. Key findings from the research are presented below.

General perceptions of access to medicine in New Zealand

When considering the range of (subsidised) medicines available in New Zealand, some GPs felt that there had been an improvement over recent years and that—for the most part—sufficient drugs were subsidised and able to meet the needs of most patients.

Table 2 Overview of general practitioner (GP) sample

| N | Number of participants (GPs) |
|---------------------------|------------------------------|
| District Health Board | |
| Auckland | 5 |
| Counties Manukau | 10 |
| Waitemata | 2 |
| Gender | |
| Male | 13 |
| Female | 4 |
| Age of participants (yrs) | |
| <40 | 4 |
| 40–60 | 10 |
| 60+ | 3 |
| Experience (yrs) | |
| <10 | 3 |
| 10–20 | 4 |
| 20+ | 10 |

95% I'm happy with what we have got. There are a small number of things which I would like more direct access to as a general practitioner. But I'm not aware of, and that may just be ignorance, of any major drugs or drug classes that we have zero access to. Most of the things that I'm aware of that are of any genuine value we have at least some access to. [GP3]

Some comments were made, however, about the range being fairly basic or limited—particularly in relation to there being few options available, in terms of the number of brands subsidised within certain classes of drugs. This included medicines such as statins and ACE inhibitors. While some GPs were accepting of this, particularly in light of the country's limited drug budget, other reported that it could become an issue in certain circumstances (eg, where a specific medication was not effective for a patient):

I would say that I have to struggle sometimes if one is not working. What can I do more to get it? What else can I try? So there are very limited options? [GP1]

One GP noted that while they felt the current range of medicines available in New Zealand was 'reasonable', they highlighted that it was likely there were some drugs that patients were missing out on. However, they also indicated that it was not always possible to know what these were:

For most GPs I think it is 30 drugs that cover 90% of your patients or something. So you kind of concentrate on those and the other ones you worry about but you don't actually worry about what you can't prescribe. [GP7]

GPs were asked their views on the pharmaceutical industry's opinion that access to medicines is poor. There was limited agreement with this claim. Some GPs were dismissive of it, citing the self-serving nature of the statement and the fact that the pharmaceutical industry would have much to gain from promoting such a scenario:

Of course they would [say that]. They've got a vested interest ... I wouldn't listen to them [laughter].... A company has only got profit in mind, yeah. ...I mean they're playing a devil's advocate to PHARMAC so obviously they need to be there and they need to, they need to advertise their products to PHARMAC, but you know, they're only there for profit. [GP9]

Others reported that, while it may be an issue in relation to some medicines, it was not a widespread occurrence. One GP noted that, due to the restrictive nature of New Zealand's pharmaceutical market, drug companies could see limited opportunities for marketing and reimbursement for their products and were subsequently withdrawing. While this was viewed as a potential problem, it was also seen to be inevitable, given the small size of the country (and associated drug budget).

Affordability of medicines

Patients in New Zealand are often required to pay a co-payment fee which ranges from NZ\$3 to NZ\$15 per item

for subsidised medicines. However, from 1 September 2008²² (shortly before the research was conducted), the eligibility criteria for the lower co-payment of NZ\$3 was expanded. In some cases, however, patients still had to pay up to a maximum pharmaceutical co-payment of NZ\$15 per item.²² This is when the patients are not enrolled in a Primary Health Organisationⁱ (PHO), if the prescription is from a private specialist (who is not part of the publicly funded system) or the patient does not have a Community Services Card or a Prescription Subsidy Card (PSC).ⁱⁱ

It was acknowledged by GPs who took part in the study that the widening of the NZ\$3 co-payment had improved access to medicines for patients, given the lower fee structure. In particular, GPs felt that the NZ\$3 per item fee was at a level that most people would be able to afford, with some indicating that some level of fee was appropriate:

I think that by and large we have in New Zealand a good number of subsidised medications to use. So, the subsidy level such that the patients pay 3NZ\$ I think is appropriate. I think that's, you know, I think sometimes if a thing's made completely free it's wasted. Its value is degraded. So, and yet that's a fine line between that and preventing access. [GP12]

Some GPs, however, were of the view that cost remained a barrier to accessing medicines for some people. This included people not registered with a PHO, those on limited incomes (including teenagers and the elderly) and patients with an extensive medicine regime:

I think the people who are on a large number of medications and I've got some here on 12 or 13 different pills.... Most of those people don't work, they are on a benefit so they are actually a little bit limited. Once they pay for 30 items [sic- 20 items] then they are fine but that is still \$100 so for them, it is quite a cost or can become a cost. [GP7]

For some, the PHO enrolment system was seen as somewhat arbitrary, with one GP commenting that it was a 'ridiculous' system, as 'essentially everyone is either registered [with a PHO] or should be'. Other GPs, however, highlighted that the system encouraged patients to access their healthcare from one provider only, which was likely to have greater benefits than visiting a number of different general practices. Comments were also made regarding the complexity of the system, resulting in confusion for some patients:

ⁱPrimary Health Organisations in New Zealand are health providers that are funded on a capitation basis by the New Zealand Government via District Health Boards.

ⁱⁱCommunity services card are issued for the patients with lower socioeconomic status, while the PSC is for a family unit that has received 20 initial dispensing of single supplies of subsidised pharmaceuticals in the year commencing 1 February to 31 January. People entitled for PSC are entitled for a reduce co-payment charges of NZ\$2 per prescription item 22. DHBNZ. Pharmacy Procedures Manual, 2010.

Obviously encouraging patients to see their own doctor is a good thing, but there seems to be some inconsistencies between \$3 and \$15, whether they're funded or non-funded, enrolled or un-enrolled patient. You know, there's the question of waiting for three months before they become funded and enrolled and it becomes so, such confusion to patients. [GP8]

Affordability of non-subsidised medicines was discussed by GPs during interviews, with comments made about these being very expensive and only being accessible to the 'rich'. Particularly for those GPs working in lower socioeconomic areas, the cost to the patient was a key consideration when deciding which medicines to prescribe:

I work in South Auckland at the moment and I'll be choosing subsidised medications and I know that, in the large majority, if it is non-subsidised medication it will be a significant financial strain for people. [GP4]

Cost to a patient has a major influence on me. And in that I routinely prescribe generics and I tend to pre-warn people if something is going to cost an additional, or is not subsidised. Or sometimes ring the chemist to see what's cheaper and what it will cost. [GP3]

Changes regarding medicines subsidy and access to medicines

GPs talked about amendments in drug subsidy, which could affect patients. This meant that prices sometimes fluctuated, with reports that the changing costs sometimes angered patients. As evident in the interview extract below, unexpected funding changes could create financial barriers for some patients and ultimately result in medicines not being accessed:

Those are snags that all of a sudden the rules change and you don't know about it and you have written a prescription for a child to have a medicine which normally would have been funded fully, no price whatsoever — and all of a sudden there is a change and now the parent goes to go and pick up [name of medicine] and now there is a partial charge to it. ...and the pharmacy calls me up in the middle of my next consultation and the parents have gone away because they couldn't afford the \$7 or whatever the part charge was. [GP6]

Another GP reported that keeping up to date with the subsidy changes was challenging and also sometimes resulted in medication regimes needing to be amended:

I suppose my main comment would be about the things changing which cause us major problems having to rethink a medication regime that we may have just got really fine tuned. That's the major problem. The other major thing I suppose is keeping up with the continuous changes of what is subsidised and what isn't. [GP4]

GPs reported that, for patients, the system was also confusing, particularly with regard to what medicines were funded and when (eg, if accessed 'out of hours' higher charges are incurred). One research participant noted that informing patients about these issues

sometimes dominated patient–GP discussions, at the expense of other important health-related issues.

Administrative issues

Despite a general level of support expressed by GPs regarding the range and accessibility of subsidised medicines, the research identified perceptions of the New Zealand system as being somewhat 'complex'. GPs spoke about this being an issue both for themselves as health professionals—as well as for patients. Some GPs claimed that they did not always understand all the codes utilised (including 'section 29'ⁱⁱⁱ) and that the eligibility criteria for subsidies were inconsistent. Research participants also spoke about the system being based on controlling costs rather than patient care, with examples provided of drugs that—at the time of the research—were unable to be prescribed by GPs (eg, initially only specialist could prescribe isotretinoin, however, later on GPs were allowed to prescribe with subsidy from 1 March 2009).²³ With no apparent clinically-related reasons for this, it was therefore assumed that these were budget-related decisions.

GPs spoke about having to undertake 'a lot of paperwork' in order to receive a subsidy for medicines which are not listed for subsidy on the Pharmaceutical Schedule. This mostly related to processes for medicines requiring Special Authority. 'Special Authority' means that the medicine is only eligible for subsidy for a particular person if an application meeting the criteria specified in the PHARMAC Schedule has been approved.²⁰ Once approved, the prescriber is provided with a Special Authority number, which can provide access to subsidy for a specified medicine. Applications can be made electronically via the internet, although a paper-based system was also still in operation at the time of the research. It should be noted that one research participant, at least, was still using the old system, and another reported that they did not have access to the electronic system at their practice. This process was felt to be time consuming, and add to an already heavy workload, and burdensome:

We have a lot of medication in here, but then there's a lot of loopholes that we have to jump through to get those medications, you know, just like a lot of those special authority regulated medications... it creates so much more work for us before we can actually get the medication and so I guess a lot of those special authority medication if they can be available without special authority that would be quite good. [GP8]

Having to reapply for Special Authority was also raised as an issue, particularly where medication was required for a long-term condition. Other comments made by research participants included the fact that 'too many' medicines still required Special Authority approval (one GP noted that many of these were 'freely available' overseas) and that the system and policy remained

ⁱⁱⁱSection 29 is law that permits an unregistered medicine in New Zealand to be procured and supplied to patients.

complex. Some GPs stated a desire for GPs to gain greater control of Special Authority medicines—in terms of being able to prescribe those that had been around for a longer period. It was also suggested that barriers in accessing Special Authority medicines should be removed for GPs who have been vocationally trained or who have special prescriber designation.

Despite some dissatisfaction with the system, it was acknowledged that the number of medicines requiring Special Authority had reduced over time. In addition, it was reported that the introduction of an electronic process for making applications had improved things considerably. There were also comments made about the protection that limited/restricted access affords GPs, in cases where patients are requesting a particular medicine that they do not feel comfortable prescribing (eg, methylphenidate).

It was also acknowledged by GPs that a system that placed some restrictions on access to medicines was appropriate—and that patients should not have open access to any medicine they requested nor that GPs should have the right to prescribe whatever they wanted, unrestricted. Findings from the research suggest that GPs considered the limitations appropriate, due to the need to improve rational use of medicines, to control costs, as well as safeguard against potential harm to patients:

I think that if their [special authority restrictions] aim is to reduce waste, I think sometimes an application and then a re-application process is sensible, because many times I see in primary care a person's started on an agent and it's just continued without thought and conscious review of whether that agent's still needed and that can be an instance that causes harm [GP12]
Well of course originally everything was totally free, and there was a much smaller, there was much smaller number of drugs provided back in the old days. And there really were no cost incentives for patients to comply... I think it's changed, it's a little bit more rational now in terms of that ...I think, there's probably for some people there probably is a price barrier whereas thirty years ago there were not, there was not. But again as I said I'm not unhappy having that signal there. [GP11]

Sole supply

As part of their cost containment system, PHARMAC issues requests for proposals from pharmaceutical companies for the sole supply of specific medicines, with the contract awarded to the cheapest supplier.⁹ While the financial savings are a clear benefit of the sole supply system, negatives such as the risk of drug shortages due to a reliance on only one supplier were mentioned by GPs:

I think the sole supply thing from time to time has found to be wonky...I mean as soon as you have got sole supply you are heading for disaster because it is only one shipment away from either don't have any or something goes wrong like what happened with adrenaline...It seems like a crazy business model which has repeatedly failed in the past and I can't see why it is not going to fail in the future. [GP7]

As highlighted above, historical examples such as an epinephrine shortage in 2007 and other incidents such as problems with the supply of the flu vaccine were cited.

Brand switching/generic medicines

In New Zealand, PHARMAC manages the drug budget by negotiating with drug companies; competition between suppliers is also encouraged.⁶ Switches from a branded medicine to a generic version (and between different brands as a means of cost-saving) are commonplace.²⁰ At the time of writing, the Pharmaceutical Schedule listed 2000 funded medicines, the majority of which are generics.²⁰

GPs reported that the switching from a branded medicine to its generic counterpart could be disruptive for patients. For example, issues such as the medicine being a different colour, or of a different name, could upset patients who sometimes needed added reassurance from their GP that the newly introduced medication was essentially the same medicine and would do the same job. It was also commented that patients sometimes viewed the replacement medicine as being inferior:

Each time the colour or something is changed, it is tough. Just recently I had a tough time explaining to a patient that it was the same medicine at the same strength and it just had a different colour. He still isn't convinced. I don't know what to do. [GP1]

Changes could be particularly disruptive for patients who were taking a wide range of medicines and expressed frustration that GPs as health professionals working at the 'frontline' were not consulted before changes were introduced:

Every so often there is a major problem with the change of generic formulation. ... Those sorts of changes occur without sort of any face talk from us and they are to do with widely prescribed medications I think if something is broadly prescribed then widespread changes are inadvisable without, you know, asking GPs' opinion about it because we often have the front line appreciation of how differences in medicines do affect patients differently. [GP4]

Another GP highlighted that a recent switch from a branded paracetamol to a generic formulation had created difficulties for some patients and that reactions to a replacement for Ritalin™ had varied across different individuals:

I also don't agree with the information written in it saying that generics are as good as the original drugs. A lot of cases that has been proved not to be the case either in presentation, formulation. I mean the example would be the cheap Panadol™ [sic-paracetamol] they have got which dissolves before people can swallow. The problem with clogging of Salamol™ [salbutamol] pills [sic - inhaler]. The change in the effectiveness of Ritalin™ for example. I think it is about 40% of people reacted quite differently to it and to say that new drug is as good is absolute rubbish. So I think that's why I refuse to hand out PHARMAC's stuff. I just won't do it. [GP7]

DISCUSSION

This study set out to explore the views of GPs in relation to access to medicines in New Zealand. GPs were generally satisfied with the range of medicines available and noted that there had been a recent improvement but raised some issues in relation to specific drug availability and a narrow range within some classes. There were concerns about financial barriers for some patients. In some respects, the findings from our research seem to be at odds with those in relation to pharmaceutical industry research on GP views, in which GPs seem to be generally not satisfied with the range of medicines available, in terms of meeting the needs of their patients¹³ and also the industry point of viewpoint which claims issues with access.¹⁷

While in this study the range of subsidised prescribed medicines available was broadly supported, GPs highlighted that the cost of prescriptions could act as a barrier for some patients. This is similar to another New Zealand study²⁴ which stated that out of a total of 18 320 respondents, 6.4% reported that they had deferred collecting a prescription at least once during the preceding 12 months because they could not afford the cost of collecting the prescription. Younger adults aged 15–24 years, females, smokers, Māori and Pacific patients, and those with the lowest income status were more likely not to obtain or buy prescription drugs because of cost barriers.²⁴ However, it is important to note that since September 2008, the co-payment for prescribed medicines have been decreased from NZ\$15 to NZ\$3 for many people. It was acknowledged by the GPs in this study that the widening of the NZ\$3 co-payment had improved access to medicines for patients, given the affordability of the lower fee structure.

Sole supply and the perceived risk of drug shortages were raised as an issue by GPs in this research. Other problems with sole supply have previously been reported, including the poor quality of slow release morphine and a brand of felodipine with questionable pharmacokinetics and bioequivalence.²⁵ In addition, the flu vaccine chosen for sole supply in 2005 was under-strength in one of the three component flu strains, and another company had to step in to supply the vaccine.²⁵ However, PHARMAC reiterates that reference pricing and sole supply occurs only where it is clear that a loss of choice between one equivalent brand of drug and another is not considered critical.²⁶ It has been suggested that it may be possible to manage some of the problems around sole supply through contingency and indemnity clauses in tendering contracts.⁷

The GPs in this study also discussed many administrative barriers regarding accessing medicines, including Special Authority, restrictions on prescribing certain medicines and a fair amount of paper work. However, since the research was conducted, many of these administrative issues may have been solved by instituting a system of electronic Special Authority application.^{27 28} In addition, while issues were evident regarding Special

Authority applications, it should be noted that only a small proportion of people are taking medicines that require a Special Authority in order to access the subsidy for a specified medicine (eg, it was found that <1% of patients require statins through Special Authority).^{29 30} Furthermore, many restrictions to medicines have clinical dimensions and are not simply in place because of issues related to cost containment. For example, prior to March 2009, isotretinoin (Roaccutane®) was only available on 'specialist only prescription medicines'.³¹ Recently, the specialist prescribing requirement was removed; however, the decision has been criticised by the New Zealand Dermatological Society stating that isotretinoin is prone to misuse.³² Moreover, these restrictions are not something which are specific to the New Zealand scenario and are quite common in Canada,³³ Australia^{34 35} and the UK.³⁶ Nevertheless, there remain issues around sole supply and administrative barriers regarding funding of medicines, which could be perhaps improved with better systems.

Concerns were also raised by research participants regarding brand switching, and with respect to generics, which were viewed by some GPs as being of lower quality. Similar findings were observed in a New Zealand report, which evaluated stakeholders' views regarding generic substitution. The report found that although PHARMAC and pharmacists agreed with generic substitution, physicians opposed the proposal for voluntary generic substitution citing concerns, which included reduced patient compliance, patient confusion and quality and bioavailability.³⁷ However, on the one hand, research indicates that most generic medicines provide the same quality, safety and efficacy as the original brand name product and are typically 20%–90% less expensive than the brand name original.³⁸ While generic medicines are associated with large cost reductions, findings from a study evaluating consumer perceptions in Auckland suggest that older patients and patients with chronic conditions needed more information about generic medicines. Less than half of survey participants viewed generic medicines 'to be as safe, effective and equivalent in quality' than branded medication.³⁹ In addition, in a PHARMAC discussion, it was noted while the term 'generic' is well understood by PHARMAC, the public may simply regard them as 'cheap'.⁴⁰ Moreover, it has been shown that the physician views can strongly influence those of their patients.^{39 40} With Medicines New Zealand, New Zealand's medicines policy, promoting the use of generic drugs and stating that consideration must be given to 'cost-effective treatment options',¹ it is vital that apart from assuring the quality of generic medicines, programmes that educate prescribers and patient about brand switching are required.

The above mentioned is a key account of what GPs see as the advantages and disadvantages of the current system and how they balance these demands in practice. Though there are matters related to affordability of medicines and the decisions doctors face clinically and

administratively, these issues are not specific to New Zealand. Doctors and general physicians all over the world face similar issues related to cost containment and the clinical prescribing. For example, in a study of GPs in the UK, it was found that almost all GPs believed that cost should be taken into account; however, conflict has been observed regarding policy related to cost containment and GPs' resistance to cost-cutting.⁴¹ In Singapore, costs related to differential subsidies in the consultation fees and the availability of medicines at public polyclinics and GP clinics were key factors in influencing the family physicians' asthma drug treatment decisions.³⁵ Also, in a Canadian study, it was reported that most physicians mentioned that drug reimbursement guidelines complicated their prescribing process and can require lengthy interpretation and advocacy for patients who require medication that is subject to reimbursement restrictions.⁴²

Limitations of the study

All GPs were working in a large metropolitan city in New Zealand—it is not known whether their views and experiences differ from colleagues working and living in small towns and rural locales. Also, only 19 of 150 initially contacted were interested in participating so this could be another source of bias in the study.

CONCLUSIONS

While GPs in this study had some issues with the availability of certain drugs, they were generally satisfied with the access to medicines in New Zealand in primary care. The issues around sole supply, the use of generic medicines and the administrative barriers regarding funding of medicines could be improved with better systems. The work provides a solid account of what GPs see as the advantages and disadvantages of the current system and how they balance these demands in practice. Findings from this study will form an essential component of any future research, which reviews New Zealand's current medicines policy.

Contributors ZB was the principal investigator and designed the study with the input from JS, LB, and PG. PG undertook the data collection. PG and LB entered, checked and validated the data. The data were analysed by LB, PG, JS, ZB and RB. ZB and RB wrote the paper with significant contribution from JS. All authors participated in editing the article and approved the text for final submission.

Funding The Funding was received from University of Auckland and the New Zealand Pharmacy and Education and Research Foundation (NZPERF); however, funders had no role in the design, analysis, interpretation of the project nor in the writing of the article. PG was given a summer student scholarship by the University of Auckland to do initial work on the project. LB and RB worked as paid researchers from the grant received from NZPERF. ZB and JS did not receive any personal funding or benefits from the grant.

Competing interests None.

Ethics approval Ethical approval was provided by the University of Auckland Human Participants' Ethics Committee.

Provenance and peer review Not commissioned; externally peer reviewed.

Data sharing statement The original data are available from the principal author (ZB).

REFERENCES

- Associate Minister of Health—Ministry of Health. *Medicines New Zealand: Contributing to Good Health Outcomes For All New Zealanders*. Wellington: Ministry of health, 2007.
- Morgan S, Hanley G, McMahon M, et al. Influencing drug prices through formulary-based policies: lessons from New Zealand. *Healthcare Policy* 2007;3:121–40.
- PHARMAC. *Pharmac Information Sheet: The Introduction to PHARMAC*. Wellington: New Zealand, 2010.
- Pharmaceutical Management Agency of New Zealand. *The Truth About Generic Medicines. Pharmac Info Sheet*. Wellington: PHARMAC, 2010.
- Pharmaceutical Management Agency of New Zealand. *Making Funding Decisions: Pharmac Info Sheet*. Wellington: PHARMAC, 2008.
- Pharmaceutical Management Agency. *Pharmaceutical Schedule*. Wellington: PHARMAC, 2011.
- Morgan S, Boothe K. Prescription drug subsidies in Australia and New Zealand. *Australian Prescriber* 2010;33:2–4.
- Glover J, Hetzel D, Tennant S. *Australia and New Zealand, Health Systems of International Encyclopedia of Public Health*. Oxford: Academic Press, 2008:255–67.
- RyalIT. *Health Minister Confirms New Medicines Spending, 30th July 2009*. <http://www.scoop.co.nz/stories/PA0907/S00395.htm> (accessed 30 Sep 2011).
- Pharmaceutical Management Agency. *Pharmaceutical Management Agency Annual Review*. Wellington: PHARMAC, 2007.
- Gregory W. *PHARMAC: Getting The Best Bang for your Buck since 1993*. Presentation at School of Pharmacy, University of Auckland, 2010.
- Ministry of Health. *Health and Independence Report*. Wellington: Ministry of Health, 2003.
- Babar Z. *Scientific Inquiry and Pharmaceutical Policy: A preliminary Analysis from New Zealand*. Canberra, Australia: National Medicines Symposium, 2008.
- Pfizer New Zealand (UMR Research Limited). *A Quantitative Study of Clinicians' Views on Pharmac*. Auckland, New Zealand: UMR Research Ltd, 2005.
- PHARMAC. *Pharmac Stakeholder Research*. Wellington: PHARMAC, 2007.
- Cumming J, Mays N, Daubé J. How New Zealand has contained expenditure on drugs. *BMJ* 2010;340:c2441.
- French S. *A Thorn In Pharmac's Side*. 2008. <http://www.stuff.co.nz/national/herceptin-debate/569569>
- Research Medicines Industry Institute. *Access to Medicines Slow and Long*. Wellington: Research Medicines Industry Institute, 2008.
- Sundakov A. *Funding High Cost Targeted Medicines: Improving the New Zealand approach: Australia Wyeth Pharmaceutical Position Paper*. Wellington: Wyeth Pharmaceutical, 2008.
- Auckland City Council. *Auckland Council*. 2011. <http://www.aucklandcity.govt.nz/> (accessed 30 Sep 2011).
- Ministry of Health. *District Health Boards*. Wellington: Ministry of Health, 2010.
- DHBNZ. *Pharmacy Procedures Manual*. Wellington, New Zealand: District Health Boards New Zealand, 2010. <http://www.dhbnz.org.nz/Site/Pharmacy/Procedures-Manual-published-version20100301.aspx> (accessed 22 Mar 2012).
- PHARMAC. *Pharmaceutical Management Agency of New Zealand*. Wellington, New Zealand: Pharmaceutical Schedule, 2009.
- Jatrana S, Crampton P, Norris P. Ethnic differences in access to prescription medication because of cost in New Zealand. *J Epidemiol Community Health* 2011;65:454–60.
- MacKay P. Is PHARMAC's sole-supply tendering policy harming the health of New Zealanders? *N Z Med J* 2005;118:U1433.
- Davies A, Metcalfe S, Moodie P, et al. PHARMAC responds to Stewart Mann on dihydropyridine calcium channel antagonists. *N Z Med J* 2005;118:U1621.
- Ministry of Health. *Sector Services. Claims, Provider Payments & Entitlements: Special Authority*. Wellington: Ministry of Health, 2008.
- Pharmaceutical Management Agency. *FAQ for GPs/Prescribers*. Wellington: PHARMAC, 2010.
- Moodie P, Metcalfe S, McCormack P. Response from PHARMAC: difficult choices. *N Z Med J* 2003;116:U361.
- Pharmaceutical management agency. *Difficult Choice*. Wellington: PHARMAC, 2010.
- BPACNZ. *Accessing funded medicines in New Zealand. Best Practice Journal* 2009:43–5.
- New Zealand Dermatological Society Incorporated. *Dermatologists Warning Over New Rules For Acne Drug—Media release December 20, 2008*. New Zealand Dermatological Society Incorporated, 2008.
- Ministry of Health British Columbia. *What is Special Authority*. British Columbia: Ministry of Health British Columbia. <http://www.health.gov.bc.ca/pharmacare/sa/saindex.html> (accessed 28 Sep 2011).

34. Australian Government Department of Health and Ageing. *Prescribing Medicines Information for PBS Prescribers*. Canberra: Australian Government Department of Health and Ageing, 2011. <http://www.medicareaustralia.gov.au/provider/pbs/prescriber/index.jsp>
35. Tan NC, Tay IH, Ngoh A, *et al*. Factors influencing family physicians' drug prescribing behaviour in asthma management in primary care. *Singapore Med J* 2009;50:312.
36. Prescribing restrictions placed on UK GPs. *Pharmacoeconomics & Outcomes News*. 2011;627:2.
37. New Zealand Medicines and Medical Devices Safety Authority (Medsafe). *Information for Health Professionals. Regulatory Issues. No Immediate Change to Generic*. Wellington: Medsafe. <http://www.medsafe.govt.nz/profs/riss/gensubleg> (accessed 17 Jul 2011).
38. European Generic Medicines Association. *Generic Medicines, Basic Notions*. Brussels: European Generic Medicines Association, 2002.
39. Babar ZUD, Stewart J, Reddy S, *et al*. An evaluation of consumers' knowledge, perceptions and attitudes regarding generic medicines in Auckland. *Pharm World Sci* 2010;32:440–8.
40. PHARMAC Consumer Advisory Committee. *Minutes of the PHARMAC Consumer Advisory Committee (CAC) Meeting: Friday 13 July 2007*. Wellington: PHARMAC, 2007.
41. Prosser H, Walley T. A qualitative study of GPs' and PCO stakeholders' views on the importance and influence of cost on prescribing. *Soc Sci Med* 2005;60:1335–46.
42. Suggs LS, Raina P, Gafni A, *et al*. Family physician attitudes about prescribing using a drug formulary. *BMC Fam Pract* 2009;10:69.