



Assisting Aboriginal patients with medication management

Cathy Larkin, Pharmacist Academic, Kimberley Aboriginal Medical Services Council, Broome, Western Australia, and Richard Murray, Planning Director, Rural Clinical School, James Cook University, Townsville, Queensland

Summary

The burden of acute and chronic disease in the Aboriginal and Torres Strait Islander population is well documented. Medicines are important for treatment and prophylaxis, but there are many factors which continue to impede medication management in Aboriginal populations. These include access and financial barriers, the nature of the therapeutic regimen and cultural, socioeconomic and geographic factors. The patient-clinician interaction and the organisational aspects of healthcare practices also have an impact. Solutions may include the selection of appropriate formulations, simple dose regimens, tailored use of medication aids, local formularies and a greater role for Aboriginal health workers.

Key words: compliance, drug utilisation.

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Introduction

There are many challenges to the delivery of effective drug therapy in Aboriginal communities.¹ One challenge is the patient adhering to the prescribed course of treatment. Aboriginal people are often said to be 'poorly compliant'. This seems unfair; Aboriginal people may face difficulties managing medicines, but approximately 50% of the general population also do not take their medicines as directed.² There is also limited literature documenting medication adherence rates in the Australian Aboriginal population.

Several strategies can be used to improve adherence to medication regimens. These strategies range from patient specific approaches, such as effective communication and simplifying drug regimens, to adopting a regional focus on medication management.

Tailoring drug regimens

Traditional bush medicines are commonly used as an immediate dose or linked to a symptomatic response. For people who are familiar with traditional remedies, the concept of taking tablets every day in the absence of symptomatic sickness may not be consistent with their understanding of the use of medicines. The need to take medicines regularly should be emphasised in patient education.

Consideration of the dosing intervals and appropriate combinations is important in tailoring dosage regimens. Simple regimens are easier to adhere to.

- Atorvastatin is an HMG-CoA reductase inhibitor which has a long half-life and therefore can be taken at any time of the day, without concern about the diurnal variation of cholesterol production. All other statins are best dosed at night which may mean an additional dosing time for the patient.
- Consider long-acting preparations that reduce the number of daily doses for patients. (For example, once-daily sulfonylureas, however they have a risk of prolonged hypoglycaemia, particularly in patients with renal impairment.)
- Appropriate combinations of drugs can reduce the dosing interval or the number of tablets people have to take. For example, using probenecid in combination allows twice a day dosing of flucloxacillin for serious staphylococcal infections instead of four times a day dosing.
- Implant and depot preparations reduce the frequency of dose administration (for example, etonogestrel).

Dose forms

Adherence may be compromised by the selection of an administration route that is not ideal for the patient. For example, using a patch for transdermal administration of medications may be inappropriate in hot and humid localities.

The selection of drug delivery devices is particularly relevant to inhaled therapies and insulin. Dry powder inhalers are portable and easy to use by patients who are having problems co-ordinating a metered dose inhaler, or where transportation and maintenance of a spacer is difficult. However, there is limited information about the stability of dry powder inhalers in humid environments.

Innolets are a useful device for the delivery of insulin in visually impaired patients.³

Storage considerations

A lack of refrigeration or frequent power cuts can be a problem for the storage of some medications and this may be a barrier to medication adherence. Antibiotic liquids are common medications that require refrigeration. Consideration may have to be given to chewable or injectable preparations where appropriate storage conditions are limited.

In some cases, medication regimens have to be tailored to accommodate available storage conditions. There have been situations where patients have kept their supply of insulin at the community clinic, while keeping one pen/vial/innolet at home in an insulated container with an ice pack (allowing at least room temperature to be maintained).

Using formulations that have less stringent storage requirements is beneficial. For example, after opening, glyceryl trinitrate sublingual spray is stable for longer than glyceryl trinitrate sublingual tablets and is therefore a more suitable option in regions of heat and humidity.

Dose administration aids

Problems with medication adherence may involve taking a higher or lower dose than prescribed, taking medicine at the wrong time, just forgetting or making a conscious decision not to follow the prescribed treatment. Although often useful, dose administration aids are not a panacea for all such problems.

In discussing possible use of a dose administration aid with a patient, important issues to be considered include:

- the suitability of the medications for repackaging
- the logistics involved in filling and collecting the pack
- cost to the patient and/or the health service
- the additional risk of human error
- the most suitable type of device
- how inhaled, as required, or liquid preparations are to be managed.

There are a number of preparations that should not be removed from the manufacturer's package and therefore they are unsuitable for use in a dose administration aid. Examples include wafer and sublingual preparations (such as olanzapine wafers), dispersible preparations (such as soluble aspirin), drugs that degrade when exposed to light (such as nifedipine) and hygroscopic preparations (such as sodium valproate tablets).

Warfarin therapy often presents a conundrum for prescribers. Although adherence is critical, a fixed dose is often not possible so orders for dose administration aids may need alteration. Frequent changes to a dose administration aid may be difficult to manage, particularly if the preparation of the aid is outsourced to a pharmacy which may be hundreds of kilometres away. Prescribers need to ensure strategies are in place for patients to manage such scenarios.

Beware the practical problems not anticipated by professionals. Complaints from the Kimberley region include the aid not fitting into a handbag (commonly one of the only relatively secure places for medicines storage), insomnia from crinkling blister-packs under the pillow at night and the backing card disintegrating and disgorging soggy medicines after sitting in a bag with a moist plug of 'ngunju' (chewing tobacco).

The Tiwi Islands provide an example of where on-site preparation of dose administration aids and the availability of a pharmacist to provide drug counselling (with the support of local pharmacy assistants) allowed more timely access to medicines. This resulted in a documented increase in the collection rates of dose administration aids.⁴

Discussing administration of medications

Failing to achieve a shared understanding of health concepts between patients and clinicians is a problem in the delivery of effective health care.⁵ A simple message can be lost by using culturally ambiguous words to describe the time of a dose (for example 'dinner'). Clarification of the terminology used to describe daily meals can be a simple but important step in working towards adherence. For example, Kimberley Aboriginal people usually refer to lunch as dinner and the evening meal as supper.

Furthermore, administration in relation to food can cause confusion for patients. A common misconception is that all medicines should be taken with food. The corollary is that patients will not take their medicines because they did not have anything to eat. For example, a patient may be told to take their medication at breakfast time and therefore believe that it should not be taken if breakfast is not eaten.

Educational tools

Finding better ways to communicate key messages about medicines and improve understanding can assist in improving medication adherence. It is important to remember that educational tools should not be developed with the intent of simplifying the message, but rather transferring the key message in a manner that it is consistent with the learning processes of the target audience.⁶

Successful strategies for improving adherence in the Gapuwiyak community in East Arnhem Land have included the use of anatomical models, 'key language concepts' (that is, phrases that were developed by Aboriginal health workers and used when showing certain illustrations), and a microscope with a video monitor to show patients the bacteria in their urine specimen.⁷

In the Kimberley, a picture of the human body has been used to explain medicines. Tablets are placed on the organ that they are 'keeping healthy' or protecting. This is particularly useful for asymptomatic chronic diseases where greater emphasis on education may be required.

The National Aboriginal Community Controlled Health Organisation (NACCHO) is currently working on a quality use of medicines project to develop medication management tools. This includes the development of medicine information sheets with plain language information and pictures that are intended to supplement the Consumer Medicine Information sheets to better meet the information needs of many Aboriginal patients.

Regional strategies to assist in improving medication adherence

The challenges associated with non-standard approaches to treatment were the impetus for the development of the Kimberley Standard Drug List (KSDL). The KSDL is a rationalised drug list for use in all Kimberley clinics (remote Government clinics and Aboriginal community-controlled health services). This list will be reflected in hospital stock. The KSDL was developed as a joint project by regional healthcare providers based on clinical evidence, existing patterns of use and multidisciplinary consensus.

A standard approach to treatment helps ensure that patients will be able to access the same medications in the places they live and visit. It also increases the familiarity of professionals and patients with the range of medicines used and reduces the likelihood of medication error.

Before the implementation of the KSDL, some clinics were managing over 320 medications, with significant and unnecessary duplication of therapies. With the implementation of the KSDL, fewer formulations need to be managed (approximately 168 essential formulations). The opportunity for residents to have guaranteed access to standard medicines and treatment protocols across the Kimberley will be a positive step towards improving medication adherence.

The contribution of Aboriginal health workers

In the day-to-day operations of an Aboriginal community-controlled health service, the health, cultural and social knowledge of Aboriginal health workers is in demand from patients and professionals. An understanding of how medicines work, familiarity with a range of common medicines and recognition of problems is needed for this work. The extent to which Aboriginal health workers (and registered nurses) have legal coverage for use of medicines is dependent on state and territory legislation and the letter of the law is often out of step with established practice.

In the Kimberley, Aboriginal health workers play an important role in the delivery of home medicine reviews to Aboriginal patients. Home medicine reviews have provided an opportunity for the development of medication management strategies, including strategies to improve adherence, in a collaborative, multidisciplinary context.

As pharmacists typically have minimal direct patient involvement in Aboriginal primary healthcare services, the participation of Aboriginal health workers in the interview stage is seen as a priority in ensuring appropriate communication and delivery of the review. Aboriginal health workers provide valuable information about the health of the patient and social circumstances that may influence medication management. The two-way exchange of information between the pharmacist and Aboriginal health worker is productive and useful for both participants and the patient.

Conducting the home medicine review interview with the Aboriginal health worker in the primary care setting is often preferable for patients. Not only is visiting the home inappropriate for some patients, being in the clinic allows for many recommendations to be actioned more quickly through the involvement of the primary care team.

Conclusion

The need for effective medication management strategies is obvious in the context of such a high burden of disease among Aboriginal people. Considering both the clinical and social needs of the patient is an important step in working towards improved adherence to prescribed treatment. Although there is benefit in tailoring the therapeutic regimen to the needs of the patient, prescribers are encouraged to also look beyond the medication chart and explore other strategies. Visual aids, communication strategies, engaging Aboriginal health workers and regional approaches are strategies that may be useful.

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Conflict of interest: none declared

Self-test questions

The following statements are either true or false (answers on page 131)

3. Storage conditions should be considered when providing medicines for people who live in remote areas.
4. Dose administration aids are not appropriate for Aboriginal people.