

## Prescribing benzodiazepines... ongoing dilemma for the GP

Many GPs regard issues related to use of benzodiazepines as some of the most demanding and uncomfortable tasks of their clinical work.<sup>1,2</sup>

In this issue we present some practical strategies that have been shown to work when deciding whether to prescribe benzodiazepines, especially in older people, or in assisting patients to withdraw. But first, some findings from a study of Norwegian GPs describing the difficult nature of this issue.

GPs in the study were aware that benzodiazepines should be used in the short-term and only for acute situations regardless of whether they were high, moderate or low prescribers.<sup>1</sup>

Despite the higher frequency of adverse effects in older people, high prescribers took a more liberal approach to prescribing because they considered it was "too late in patients' lives to change things".

Very few GPs said they would cease prescribing benzodiazepines even when they were concerned about drug dependence and the vagueness of complaints that led to them being prescribed initially.<sup>1</sup>

Indications for use and treatment plans were scarce in the medical records of long-term users.

### Inside ▶

Before prescribing checklist

'Z' Drugs – are they a better alternative?

Evidence supports withdrawal strategies

Managing insomnia in older people

Non-drug treatments

Complementary update: valerian and melatonin

Using antipsychotics for behavioural disturbances

## A matter of balance when prescribing for older people

The decision to prescribe benzodiazepines, either short or long-acting, to older people or to continue their ongoing use needs to be based on regular evaluation of risks and benefits, and clearly defined and documented treatment goals.<sup>2</sup>

GPs often experience pressure from families, nursing home staff and older people themselves to treat real or perceived "insomnia".

The benefits of benzodiazepines for managing insomnia, however, are only short-lived.

In sleep studies, most benzodiazepines lose their hypnotic efficacy after approximately 14 consecutive nights, even though people continue to take them. The quality of sleep is also modified, i.e. less deep and relaxed sleep, with feelings of tiredness, lack of energy, and mood disturbances experienced during the daytime. These effects are more pronounced in older people who tend to both fall asleep and wake earlier.<sup>3,4</sup>

Long half-life benzodiazepines, such as diazepam and nitrazepam, are considered inappropriate to treat insomnia in older people because they can lead to increased frequency of confusion, drowsiness, memory loss, unsteadiness, falls and incontinence.<sup>5</sup> Care should also be taken with short-acting benzodiazepines, sedating antihistamines and tricyclic antidepressants as they can have the same effects.<sup>5</sup>

Some falls studies have found an increased risk of hip fractures with benzodiazepines; more recent studies found that the risk was even greater with a short-acting benzodiazepine<sup>6</sup> and almost double with zolpidem.<sup>7</sup>

Use of long-acting benzodiazepines and zopiclone almost doubles the risk of road traffic accidents in all age groups.<sup>8</sup> Older people (67–84 years) are at increased risk of a motor vehicle crash after both brief (50% increase) and extended exposure (30% increase) to a long-acting benzodiazepine as compared with middle-aged drivers.<sup>9</sup>





## Prescribing Pointers

### Before prescribing

GPs may find the following questions a useful checklist for reviewing their benzodiazepine prescribing for insomnia.<sup>2,10</sup>

#### Check:

- Are new prescriptions only written for short-term use (no longer than two weeks)?
- When new and repeat prescriptions are written, is advice given about:
  - a) non-drug therapies, e.g. counselling about good sleeping habits?
  - b) the risks of benzodiazepine use, including the potential for dependence?

The following are also important but their impact on outcome is less clear than those above.

- Are all patients prescribed benzodiazepines regularly reviewed (at least three-monthly)?
- Before prescribing, are patients aged 65 years or over, or their carers, given advice about their increased risks of continued use with ageing?
- Are older patients, or their carers, asked about feeling unsteady, bruising and difficulties with balance, all of which may indicate an increased susceptibility to falls?
- Are chronic users (those using for more than four weeks) identified and encouraged to reduce their use?

### 'Z drugs' – are they a better alternative?

Zopiclone and zolpidem have been promoted with the promise of similar hypnotic effects to benzodiazepines but with less disruption of natural sleeping patterns, and fewer adverse effects due to selective binding at benzodiazepine receptors and their short half lives.

Clinical experience over several years, however, has identified some concerns. Delirium, hallucinations, nightmares and hip fractures have been reported with zolpidem.<sup>7</sup> Zopiclone has been shown to cause hangover effects and to impair psychomotor performance in a similar way to temazepam and nitrazepam.<sup>3</sup>

Despite being classified as non-benzodiazepine hypnotics, it appears zolpidem and zopiclone still have potential for dependence and therefore should be subject to the same precautions as benzodiazepines.<sup>3</sup>



Health professionals, do you need information on therapeutic drugs?

Contact the NPS Therapeutic Advice and Information Service

Phone 1300 138 677

### Evidence supports successful withdrawal strategies

**Simple interventions can reduce benzodiazepine use in the primary care setting, even among older people: 40% will be able to withdraw without difficulty, 40% will have some difficulty and the remainder may opt to continue using a benzodiazepine.<sup>11</sup>**

Various studies have shown that benzodiazepine withdrawal can be achieved if the problems of continued drug usage are explained to the patient. Withdrawal will produce little sleep disturbance if done slowly and if the patient controls the pace. Use of longer-acting benzodiazepines, e.g. diazepam, can also assist the withdrawal process (see NPS Prescribing Practice Review, July 1999 and News 4, 1999, available on our web site <http://www.nps.org.au>).

The following successes highlight the strategies that can be used to initiate withdrawal.

- After 6 months, benzodiazepine use was reduced by approximately one-third when GPs sent letters to long-term users explaining possible problems and asking that they consider gradually reducing their use under supervision.<sup>12</sup>
- One in six patients stopped using benzodiazepines over a period of 8 months after their GP reviewed their prescriptions at regular consultations.<sup>13</sup>
- A pharmacist led review of an older person's medicines can minimise adverse events and reduce the use of sedatives and hypnotics by up to 20%.<sup>14</sup>

### Five-point plan for managing insomnia in older people\*

- ✓ Discuss and agree on the therapeutic objectives with the patient
- ✓ Assess the complaint: insomnia is a symptom
- ✓ Treat or improve the management of underlying problems such as restless legs syndrome or chronic airways limitation
- ✓ Educate the patient about good sleep habits
- ✓ The use of hypnotics should not be first-line therapy

\*In the community or residential aged-care facilities

(For more information see *NPS News 4*, 1999, available on our website at <http://www.nps.org.au>)

## Sleep facts

- Sleep patterns change throughout life.
- The number of hours of sleep required each night varies significantly between individuals.
- As people age, they tend to have a shorter overall sleep period and spend more time in the lighter sleep stages, often being interrupted by brief periods of wakefulness.
- Emotional disturbances are a common cause of having trouble falling asleep whereas depression is often a cause of sleep interrupted by frequent awakenings. More than one in three Australian women aged 70–75 years reported difficulty in sleeping;<sup>15</sup> the majority of women said that their sleeping problems started when they were widowed or during an illness.

## Non-drug treatments offer a real alternative

Non-drug treatments should always be first-line therapy for insomnia.

### Patients prefer behavioural therapy

Patients were more satisfied with behavioural therapies than temazepam in a Canadian trial involving 78 patients with a mean age of 65 who had suffered insomnia for an average of 17 years.<sup>4</sup>

### Good habits can improve sleeping patterns

Routines that incorporate the following techniques will help older people, whatever their residential setting, have a better sleep.<sup>3</sup>

- Get up about the same time every day regardless of the amount of sleep that night. Going to bed at a constant time is not as important but might help.
- Avoid daytime naps especially in the late afternoon.
- Use bed only for sleep and sex, not for eating, reading or watching television.
- Indulge in relaxing evening activities.
- If unable to sleep, get up and do something.
- Avoid alcohol and stimulants such as caffeine and nicotine for 2–3 hours before going to bed.

For information on recommended sleep routines that you and your patients might find useful, please see *Prescribing Practice Review No. 4* available on our website, <http://www.nps.org.au>



## Complementary update

Valerian and melatonin, either alone or in combination products, may be useful in alleviating mild, short-term insomnia. However like benzodiazepines and the 'Z' drugs, they should be reserved for short-term use until more is known about their long-term safety, dependency potential and efficacy.<sup>3</sup>

### Valerian

Limited studies provide evidence for the mild hypnotic activity of valerian but it is not known whether these effects are due to one or a combination of compounds within the product. Preparations may also differ in effectiveness, depending on the type of preparation,

age of the herb or extract, species and growing conditions of the plant<sup>3</sup> (see also *NPS News 4*, 1999).

### Melatonin

Melatonin is a naturally occurring hormone secreted by the pineal gland in the brain. It has been used widely for regulation of sleep-wake cycles in circadian-based sleep disorders such as jet-lag. Reports of its hypnotic properties are varied, partly because the studies have been in healthy volunteers and the dosages used have differed widely (1–75mg).<sup>3</sup> Adverse effects include enhanced immune functioning (avoid use in those taking immunosuppressants or corticosteroids), vasoconstriction and exacerbation of depression.<sup>3</sup>

## What's what

Hypnotics	
<b>diazepam</b>	Antenex®, Ducene®, Valium®, Valpam®
<b>nitrazepam</b>	Alodorm®, Mogadon®
<b>temazepam</b>	Normison®, Temaze®, Temtabs®
<b>zopiclone</b>	Imovane®
<b>zolpidem</b>	Stilnox®

Antipsychotics	
<b>amisulpride</b>	Solian®
<b>haloperidol</b>	Serenace®
<b>olanzapine</b>	Zyprexa®
<b>quetiapine</b>	Seroquel®
<b>risperidone</b>	Risperdal®

## Reminder: Using antipsychotics for behavioural disturbances

- Using newer atypical antipsychotics (amisulpride, olanzapine, quetiapine and risperidone) to treat behavioural disturbances in dementia has been questioned in light of little evidence of efficacy greater than the placebo response.<sup>16</sup> Psychotic symptoms (e.g. delusions, hallucinations) may respond better to antipsychotics than behavioural disturbances/agitation.
- Risperidone is the only drug currently approved for use in this indication.
- No single agent is superior to another with respect to efficacy so selection is based on adverse effect profile.<sup>16</sup>
- Patients with dementia and elderly patients in general are more sensitive to the effects of antipsychotics, particularly extrapyramidal side-effects (EPS).
- Always start antipsychotics at low doses in older people, increasing slowly as necessary. Evidence supports the use of low dose haloperidol (0.5mg once or twice per day) as first-line therapy for severe agitation,<sup>17</sup> when drug therapy is required.
- Medication reviews in nursing homes by clinical pharmacists have been shown to reduce the use of antipsychotics in older people.<sup>14</sup>

### Contributing reviewer:

Associate Professor Andrea Mant, Advisor QUM  
South-Eastern Sydney Area Health Service

### Reviewers

Dr James Best, General Practitioner  
Ms Jan Donovan, Consumer

Dr John Dowden, Australian Prescriber  
Ms Simone Rossi,  
Australian Medicines Handbook  
Prof John Murtagh, Dept of General Practice,  
Monash University, Melbourne  
Ms Susan Parker,  
Australian Self-Medication Industry

Any correspondence regarding content should be directed to the NPS. Declarations of interest have been sought from all reviewers.

### References:

- Dybwad TB, et al. Family Practice 1997;14(5):361-8.
- RACGP. Guidelines for the rational use of benzodiazepines, RACGP, 2000; www.racgp.org.au/publications (accessed August 2002).
- Wagner J, et al. Ann Pharmacotherapy 1998;32:680-91.
- Morin CM, et al. JAMA 1999;281:991-9.
- Hanlon JT, et al. Ann Pharmacotherapy 2000;34:360-5.
- Pierfitte C, et al. BMJ 2001;322:704-8.
- Wang PS, et al. J Am Geriatr Soc 2001;49:1685-90.
- Barbone F, et al. Lancet 1998;352:1331-6.
- Hemmelgarn B, et al. JAMA 1997;278:27-31.
- Shaw E, Baker R. J Clin Governance 2001;9:45-50.
- Prodigy Guidance Hypnotic/Anxiolytic Dependence Review, July 1999.
- Cormack MA, et al. Br J Gen Pract 1994;44:5-8.
- Holden JD, et al. Family Practice 1994;11:358-62.
- Roberts MS, et al. Br J Clin Pharm 2001;51:257-65.
- Hasan S, et al. Aust J on Ageing 2001;20(1):29-35.
- Lactot KL, et al. J Clin Psychiatry 1998;59:550-61.
- Loneragan E, et al. Haloperidol for agitation in dementia. In: The Cochrane Library, Issue 2, 2002. Oxford: Update Software.

*The information contained in this material is derived from a critical analysis of a wide range of authoritative evidence. Any treatment decisions based on this information should be made in the context of the individual clinical circumstances of each patient.*



National Prescribing Service Limited

**Our goal** To improve health outcomes for Australians through prescribing that is: ▲ safe ▲ effective ▲ cost-effective  
**Our programs** To enable prescribers to make the best prescribing decisions for their patients, the NPS provides:  
▲ information ▲ education ▲ support ▲ resources

Level 1 / 31 Buckingham Street, Surry Hills NSW 2010  
Phone: 02 9699 4499 | Fax: 02 9699 5155 | email: info@nps.org.au | net: http://www.nps.org.au