Hypnosedatives in the Elderly
A Guide to Appropriate Use

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Abstract
Hypnosedatives are used extensively in older people, although their usage has fallen since the early 1970s. Increasing consumer concerns now risk underuse of these drugs, even in appropriate situations. High quality prescribing of hypnosedatives requires consideration of the pharmacokinetics and pharmacodynamics of these drugs, an understanding of their adverse effects, efficacy and clinical situations in which they may be of use, and an appreciation of the role of non-pharmacological therapy. If these issues are adequately addressed, hypnosedatives can be used effectively to treat insomnia and some anxiety disorders. Hypnosedative prescribing can be improved through regular audits, and the development of a local prescribing policy and educational programmes.

Benzodiazepines are the most commonly used hypnosedatives. They are used for the treatment of both insomnia and anxiety disorders, but can be associated with a number of adverse effects in older individuals including confusion, falls and fractures (particularly agents that have a long elimination half-life) and injurious car crashes. Increased mortality has also been reported in older individuals taking these drugs. Tolerance and dependency are concerns with poor prescribing.
of all benzodiazepines and withdrawal effects can be extreme when there is inappro- 
appropriate clinical management of the cessation of very short half-life agents. 
Zopiclone and zolpidem are nonbenzodiazepine agents but they bind to the 
same receptors as benzodiazepines. They are used for the treatment of insomnia, 
and may be better tolerated than benzodiazepines in some older people. 
Other hypnosedatives, such as melatonin, chloral hydrate and chlormethia-
ole, are less suitable for the treatment of insomnia in older patients, but may be 
considered. Buspirone and antidepressants are specifically indicated in some anxiety disorders, but are generally not first-line hypnosedatives. Antipsychotics 
should not be used as hypnosedatives. 
Individual drug choice is affected by consideration of speed of onset, with-
drawal effects, half-life and hangover effects, efficacy data and cost. Initial dosages 
should be low, and increases made slowly. Duration of therapy should generally 
be limited to 2 weeks in the first instance. It is often appropriate to withdraw hypnosedatives in long term users and this may be assisted by substituting short half-life agents with those that have a longer half-life.

1. The Issue

Prescriber and consumer awareness of the potential pitfalls associated with hypnosedative use in older people has increased in recent years, but these drugs remain among the most commonly prescribed medications for older people. The benzodi-
azepines, in particular, represented a major advance on earlier medications, particularly the barbiturates, having acceptable efficacy and reduced risk in overdose. Initial enthusiasm led to overuse of benzodi-
azepines for appropriate conditions and increasing use for inappropriate conditions. It became apparent that these were not innocuous medications and that the spectrum of adverse effects was wider in older people. This has led to a reduction in prescribing, but the danger now is that they may be withheld when their use is appropriate.

This article reviews the current state of knowledge and offers a modern perspective on the appropriate use of a range of hypnosedatives, but particularly benzodiazepines, in older people.

2. Epidemiology of Hypnosedative Use in Older People

The use of hypnosedatives has declined in many Western countries, from a peak in the early 1970s. For instance, in the US there were over 60 million outpatient prescriptions for sedative-hypnotics in 1971; this had fallen to just over 20 million by 1989[1] with a further fall by 1991.[2] Despite the decline, it was estimated that in 1987 a purchase of benzodi-
azepines was still made by 6.2% of the US population.[3]

The reduction in benzodiazepine usage has occurred across all age groups, but in particular affects older people who are prescribed a disproportionate amount of hypnosedatives. For instance, in the US, people over 60 years comprise 17% of the population but receive 35% of all prescriptions for benzodiazepine and nonbenzodiazepine minor tranquillizers.[4] Similarly, in Australia, where benzodi-
azepines are the third most commonly prescribed medication,[5] although people over 65 years comprised 11% of the Australian population, in 1991 they received 35% of all prescription sedatives.[6] A study of an Australian rural population demonstrated that 36.5% of general practice patients over the age of 70 years were users of benzodiazepines, compared with 11.3% of the entire practice popu-
lation.[7]

The use of hypnosedatives in hospitals, residential care and other institutional settings, where a large proportion of people are elderly, is also declining but remains at levels above those in the community. An Australian study found 19.1% of patients (mean age 60 years) admitted to a large teaching hospital were taking benzodiazepines regularly.[8] In a re-