

# RGH Pharmacy E-Bulletin

Volume 35 (3): August 10, 2009

A joint initiative of the Patient Services Section and the Drug and Therapeutics Information Service of the Pharmacy Department, Repatriation General Hospital, Daw Park, South Australia. The RGH Pharmacy E-Bulletin is distributed in electronic format on a weekly basis, and aims to present concise, factual information on issues of current interest in therapeutics, drug safety and cost-effective use of medications.

Editor: Assoc. Prof. Chris Alderman, University of South Australia – Director of Pharmacy, RGH

© Pharmacy Department, Repatriation General Hospital, Daw Park, South Australia 5041

## Insomnia in the elderly

Complaints about sleep are common amongst the elderly and are sometimes mistakenly attributed to aging itself. Insomnia may have serious consequences in this age group including an increased risk of falls and cognitive impairment. Impaired short term memory, attention and response times may be mistaken for dementia or result in earlier loss of independence. Insomnia may be part of a primary sleep disorder, but in the elderly it is more usually a symptom associated with a co-morbid condition, or secondary to behavioural, environmental or pharmacological factors.

Common causes of insomnia in the elderly include pain due to arthritis or leg cramps, dyspnoea due to cardiovascular or respiratory disease, nocturia due to benign prostatic hypertrophy (BPH) or caffeine ingestion, reflux due to GORD or depression/anxiety. Medications such as salbutamol, diuretics, anticholinesterases, SSRI antidepressants, beta blockers, and corticosteroids may also be implicated. Environmental factors such as intrusive noise or light may be a problem for those in residential care. The elderly are also more likely to take daytime naps which may disturb sleep at night. The patient's beliefs about sleep and their own sleep problem may also provide useful information.

Non-pharmacological management of insomnia should always be first line. Discussion about normal sleep changes due to aging (lighter sleep with more frequent awakenings) may help to reduce anxiety about insomnia. Sleep hygiene education can assist patients to change habits which may be contributing to their sleep disturbance.

The symptomatic management of co-morbid conditions or physical complaints that may be affecting sleep should be optimised. Nocturia is a common cause of sleep disturbance in older people and also increases the risk of night-time falls. The possible role of BPH, diuretics, urinary tract infection, caffeine or alcohol ingestion should be considered. If depression or anxiety is suspected cognitive behavioural therapy or pharmacotherapy may be indicated. Suspected sleep disorders should be referred for specialist assessment.

If medications may be contributing to insomnia, adjusting the dose or time of administration may help. For example prednisolone and most SSRIs should be taken in the morning, and if possible inhaled salbutamol should be avoided at bedtime.

A meta-analysis of 24 randomised controlled trials of sedative-hypnotics in people aged over 60 found that the benefits of sedative use are marginal. The mean increase in total sleep time with any sedative was 25.2 minutes (12.8 to 37.8 minutes;  $P < 0.001$ ) compared to placebo. The number needed to treat for improved sleep quality (soundness or depth of sleep) was 13 and the number needed to harm for any adverse event was 6. This suggests that an adverse event is twice as likely to occur as an improvement in sleep quality. Other epidemiological evidence suggests that the use of benzodiazepines in the elderly increases the risk of hip fracture by at least 50%. The elderly are also more likely to experience over-sedation, memory loss, confusion, ataxia, incontinence and respiratory depression.

The hypnotic benefits of benzodiazepines are temporary and physical and psychological dependence may occur after 2-3 weeks of regular use. Therapy should be limited to the shortest possible duration. A small dose of a short-acting agent (eg temazepam 5mg or oxazepam 7.5mg) should be used to avoid daytime sedation. Long-acting agents such as diazepam, clonazepam, nitrazepam and flunitrazepam should be avoided.

The risk of CNS and respiratory depression is increased with concurrent use of medications such as opioid analgesics, anticonvulsants or psychotropic medications. These drugs are more commonly used by the elderly and emphasise the need to use low hypnotic doses. Benzodiazepines should be used cautiously in those with COPD or sleep apnoea.

Acknowledgment – This E-Bulletin is based on work by Karin Nyfort-Hansen, Clinical Pharmacist, RGH.

**FOR FURTHER INFORMATION – CONTACT THE PHARMACY DEPARTMENT ON 82751763 or email: [chris.alderman@rgh.sa.gov.au](mailto:chris.alderman@rgh.sa.gov.au)**  
Information in this E-Bulletin is derived from critical analysis of available evidence – individual clinical circumstances should be considered when making treatment decisions. You are welcome to forward this E-bulletin by email to others you might feel would be interested, or to print the E-Bulletin for wider distribution. Reproduction of this material is permissible for purposes of individual study or research.

