

# RGH Pharmacy E-Bulletin

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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.

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## Varenicline and mental disorders

Smoking is the leading preventable cause of death and it is estimated that more than 30% of people with mental illness in Australia currently smoke. Varenicline is a partial alpha-4/beta-2 nicotinic cholinergic receptor agonist. It is also reported to be a full agonist of serotonin receptors. Meta-analysis suggests that varenicline is more efficacious than placebo and bupropion in achieving smoking abstinence at one year.

Patients with current or history of cardiovascular, neurologic or psychiatric problems including major depression were not included in the pre-marketing studies. A history of alcohol and/or drug abuse were also common exclusion criteria. The evidence for the effectiveness of varenicline is derived from studies largely conducted amongst otherwise healthy smokers.

The Australian Adverse Drug Reactions Bulletin lists varenicline as a drug of current interest. In December 2007 the European Medicine Agency warned physicians that the use of varenicline for smoking cessation has been associated with cases of depression, with symptoms including suicidal ideation and attempt. In February 2008 the US FDA issued an alert concerning an increase in neuropsychiatric symptoms in patients taking varenicline. These include changes in behaviour, agitation, depressed mood, suicidal ideation and attempted and completed suicide.

As well as strict inclusion criteria, conducted trials of varenicline had modest sample sizes. Two neuropsychiatric episodes were reported in the varenicline trials. Recent literature has described case reports of exacerbation of schizophrenia, induction of a manic episode in a patient with bipolar illness and exacerbation of recurrent major depression. The duration of treatment with varenicline had been between 1-6 weeks for these affected patients. Controlled trials in subjects with schizophrenia and various other mental disorders are required to determine efficacy and safety for patients with mental illness.

The US FDA stresses the following safety information following post-marketing surveillance:

- Varenicline may cause worsening of a current psychiatric illness, even if it is currently under control, and in addition may cause an previous psychiatric illness to reoccur.
- Healthcare professionals, patients, patients' families, and caregivers should be alert to and monitor for changes in mood and behaviour in patients treated with varenicline. In most cases reported to date, neuropsychiatric symptoms developed during varenicline treatment, but in others, symptoms developed following withdrawal of varenicline therapy.
- Patients taking varenicline may experience vivid, unusual, or strange dreams.
- Patients taking varenicline may experience impairment of the ability to drive or operate heavy machinery.

Close monitoring of patients prescribed varenicline is required. Clinical review is recommended within two weeks of initiation of treatment. Current PBS authority requires patients to enrol in a comprehensive support and counselling program for smoking cessation.

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**FOR FURTHER INFORMATION – CONTACT THE PHARMACY DEPARTMENT ON 82751763 or email: [chris.alderman@rgh.sa.gov.au](mailto:chris.alderman@rgh.sa.gov.au)**  
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