

RGH Pharmacy E-Bulletin

Volume 24 (5): November 13, 2006

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

Delirium

Delirium (sometimes also referred to as acute confusional state or acute brain syndrome) is characterised by a disturbance in consciousness and cognition. In delirium (as opposed to other forms of cognitive impairment) the disturbance develops over a short period of time (usually hours to days) and tends to fluctuate during the day. Evidence from the clinical history, physical examination, or laboratory tests can provide information that shows the delirium is a direct physiological consequence of a general medical condition, the effects of a substance (intoxication or withdrawal), use of a medication, exposure to a toxin, or a combination of these factors.

The delirious patient has a reduced clarity of awareness of their environment and the ability to focus, sustain, or shift attention is often impaired. The patient may perseverate with an answer to a previous question rather than appropriately shift attention, and is easily distracted by irrelevant stimuli: it may be difficult or even impossible to engage the person in a conversation. There is an accompanying change in cognition (which may include memory impairment, disorientation, or language disturbance) or development of a perceptual disturbance. Memory impairment is most often seen in connection to recent memory. Disorientation is common, usually to time or place. Dysarthria (impaired ability to articulate), dysnomia (impaired ability to name objects), dysgraphia (the impaired ability to write), or even aphasia (partial or total inability to produce and understand speech) can be present. Speech can be rambling and irrelevant. Perceptual disturbances may include misinterpretations, illusions, or hallucinations. Sensory misperceptions are most commonly visual, but may affect other senses. The cognitive disturbance develops over a short period of time and tends to fluctuate during the course of the day. Delirium is often associated with a disturbance in the sleep-wake cycle such as daytime sleepiness or night-time agitation, and complete reversal of the night-day sleep-wake cycle can occur. Delirium is frequently accompanied by disturbed psychomotor behaviour such as restlessness or hyperactivity. Patients often grope or pick at bedclothes, or try to get out of bed when it is unsafe. Psychomotor activity often shifts from one extreme to the other over the course of a day. The patient may appear anxious or fearful, depressed, irritable, angry, euphoric or apathetic.

Delirium is common amongst hospitalised patients. Symptoms usually develop over hours to days, although in some cases may begin abruptly (e.g. after head trauma). Delirium may resolve in a few hours to days, or symptoms may persist for weeks to months, particularly in the elderly. Full recovery is less likely in the elderly, with estimated rates of full recovery by the time of hospital discharge varying from 4% to 40%. Delirium is associated with complications such as pneumonia and decubitus ulcers, lengthening hospital stays. Delirium is also associated with increased functional decline and risk of institutional placement. Elderly individuals who develop delirium during a hospitalisation are thought to have up to 20-75% chance of dying during that hospitalization and also have a very high death rate during the months after discharge.

Diagnostically, it is important to ascertain if the patient has dementia rather than a delirium, delirium alone, or delirium superimposed on a pre-existing dementia. Memory impairment is common to both a delirium and a dementia, but the person with a dementia alone is alert and does not have the disturbance in consciousness that is characteristic of a delirium. The rapid onset of symptoms in delirium is importantly different to the typical evolution of symptoms of dementia (more gradual or insidious). The severity of delirium symptoms often fluctuates during a 24-hour period, whereas dementia symptom severity generally does not.

Many general medical conditions are associated with episodes of delirium, including urinary tract infections, respiratory infections, electrolyte disturbances such as hyponatraemia or hypercalcaemia, malignancies and HIV infection. Delirium may occur during substance intoxication or withdrawal or as a side effect of some medications or exposure to the effects of toxins. Many medications are associated with delirium, including anaesthesia, analgesics, anticonvulsants, antihistamines, antihypertensives, steroids, lithium and tricyclic antidepressants.

Acknowledgment – This E-Bulletin is based on work by Chris Alderman, Senior Clinical Pharmacist, RGH

FOR FURTHER INFORMATION – CONTACT THE PHARMACY DEPARTMENT ON 82751763 or email: 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.