



[Print](#) :: [Close](#)

FAST FACTS AND CONCEPTS #60

Author(s): Earl Quijada MD and J Andrew Billings MD

Background Delirium is a common psychiatric disorder in the terminally ill (See Fast Fact #1). Delirium can deeply disturb the patient and family; treatment is generally indicated in both hyperactive or hypoactive delirium. Management options include identifying and treating the underlying cause, as well as symptomatic treatment through non-pharmacological and pharmacological interventions. Common reversible etiologies in advanced terminal illness include drug toxicity, infection, hypotension, hypoxia, hypoglycemia, hyponatremia, hypercalcemia, elevated ammonia, alcohol-sedative drug withdrawal, and sleep deprivation.

Benzodiazepines With the exception of treating delirium due to drug withdrawal or anticholinergic excess, neuroleptics are the first-line pharmacological agents for symptomatic management. Benzodiazepines should be avoided unless the source of delirium is alcohol-sedative drug withdrawal or when severe agitation is not controlled by the neuroleptic; these agents can cause "paradoxical" worsening of confusional states.

Haloperidol The best studied neuroleptic, and the agent of choice for most patients, is haloperidol (Haldol), which has a favorable side effect profile and can be administered safely through oral and parenteral routes. Starting doses are 0.5 – 1 mg PO or IV (the intramuscular route is also available). Titration can occur by 2 – 5 mg every 1 hour until a total daily requirement is established, which is then administered in 2-3 divided doses per day. Intravenous haloperidol may cause less extrapyramidal symptoms than oral haloperidol.

Other neuroleptics Other 'older' neuroleptics are probably comparable to haloperidol in controlling delirium (and many are also good anti-emetics), but may have a higher incidence of side effects: extrapyramidal reactions, sedation, and hypotension. Chlorpromazine (Thorazine) has been advocated for dying patients in whom sedation is desired, especially for terminal delirium.

Newer atypical neuroleptics The newer, 'atypical' neuroleptics olanzapine (Zyprexa), quetiapine (Seroquel), and risperidone (Risperdal) may be helpful in the management of confusional states. Evidence supporting usage of atypical neuroleptics in delirium is scant, so they should not be considered a first-line treatment. However, these agents are associated with fewer drug-induced movement disorders than haloperidol, and may be agents of choice in patients with Parkinson's disease and related neuromuscular disorders, as well as patients with a history of extrapyramidal reactions from neuroleptics.

The starting dose for olanzapine is 5 mg PO every day; after one week, the dose can be raised to 10 mg a day and titrated to 20 mg a day. Quetiapine is initially given 25 mg PO twice a day which can be raised by 25 – 50 mg per dose every 2 – 3 days up to a target of 300 – 400 mg a day, divided into 2 – 3 doses. Risperidone is given 1 – 2 mg PO at night and is gradually raised 1 mg every 2 – 3 days until an effective dose (usually 4 – 6 mg PO hs) is reached. These agents are not available in either intramuscular or intravenous routes. Olanzapine is available as an orally disintegrating tablet.

The switch to an atypical neuroleptic may be made abruptly but it is probably wiser to taper off the typical agent slowly while titrating up the atypical agent. Atypical antipsychotics may not work as fast as conventional

antipsychotics for acutely aggressive and agitated patients requiring onset of action within minutes. Quetiapine is the most sedating of the newer agents and has potential applicability in treating agitated delirium, especially at the end of life.

References

1. Breitbart W, Bruera E, Chochinov H, Lynch M. Neuropsychiatric syndromes and psychological symptoms in patients with advanced cancer. *J Pain Symptom Manage*. 1995; 10:131-41.
2. Breitbart W, Marotta R, Platt MM, et al. A double-blind trial of haloperidol, chlorpromazine, and lorazepam in the treatment of delirium in hospitalized AIDS patients. *Am J Psych*. 1996; 153:231-7.
3. Inouye SK, Bogardus ST Jr, Charpentier PA, et al. A multicomponent intervention to prevent delirium in hospitalized older patients. *N Engl J Med*. 1999; 4:340:669-76.
4. Lawlor PG, Gagnon B, Mancini IL, et al. Occurrence, causes, and outcome of delirium in patients with advanced cancer: a prospective study. *Arch Intern Med*. 2000; 160:786-94.
5. McIver B, Walsh D, Nelson K. The use of chlorpromazine for symptom control in dying cancer patients. *J Pain Symptom Manage*. 1994; 9:341-5.
6. Menza MA, Murray GB, Holmes VF, Rafuls WA. Decreased extrapyramidal symptoms with intravenous haloperidol. *J Clin Psych*. 1987; 48:278-280.
7. Sadock B, Sadock V. Kaplan and Sadock's Pocket Handbook of Psychiatric Drug Treatment. 3rd Edition. Philadelphia, PA: Lippincott Williams and Williams; 2001.
8. Stahl S. Essential Psychopharmacology: Neuroscientific Basis and Practical Applications. 2nd Edition. New York, NY: Cambridge University Press; 2000.

Fast Facts and Concepts are edited by Drew A. Rosielle MD, Palliative Care Center, Medical College of Wisconsin. For more information write to: drosiell@mcw.edu. More information, as well as the complete set of Fast Facts, are available at EPERC: www.eperc.mcw.edu.

Version History: This Fast Fact was originally edited by David E Weissman MD. 2nd Edition published September 2006. Current version re-copy-edited April 2009; olanzapine orally disintegrating tablet information added.

Copyright/Referencing Information: Users are free to download and distribute Fast Facts for educational purposes only. Quijada E, Billings JA. Pharmacologic Management of Delirium; Update on Newer Agents, 2nd Edition. Fast Facts and Concepts. July 2006; 60. Available at: http://www.eperc.mcw.edu/fastfact/ff_060.htm.

Disclaimer: Fast Facts and Concepts provide educational information. This information is not medical advice. Health care providers should exercise their own independent clinical judgment. Some Fast Facts cite the use of a product in a dosage, for an indication, or in a manner other than that recommended in the product labeling. Accordingly, the official prescribing information should be consulted before any such product is used.

ACGME Competencies: Medical Knowledge, Patient Care

Keyword(s): Non-Pain Symptoms and Syndromes

© 2008 Medical College of Wisconsin

Medical College of Wisconsin

8701 Watertown Plank Road, Milwaukee, WI 53226

www.mcw.edu | 414.456.8296

[Print](#) :: [Close](#)