

# GUIDELINE WATCH: PRACTICE GUIDELINE FOR THE TREATMENT OF PATIENTS WITH DELIRIUM

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Since the 1999 publication of the APA's *Practice Guideline for the Treatment of Patients With Delirium* (1), advances in the clinical neurosciences and other areas have contributed to the understanding of delirium and have expanded options for its management. This guideline watch summarizes important elements of the incremental progress in this area.

## ► DETECTION

The 1999 guideline noted that the presence of delirium is frequently undetected by clinicians until psychiatric consultation is obtained, often triggered by dangerous behaviors. In the years since 1999, many papers providing easily remembered strategies for clinical detection and management of delirium have been published, not only in the psychiatric literature but also in journals that focus on critical care, pain management, oncology, medical-surgical nursing, substance abuse, and geriatric medicine. Despite this broadening literature base, it has been noted that many cases of delirium continue to be missed (2). Reasons for this underrecognition are varied but may include the absence of routine, systematic screening (3). Improved attention to and recognition of delirium should be motivated by its clinical importance (e.g., association with elevated mortality [4]).

One step toward improved detection may be the use of instruments that have demonstrated sensitivity to the presence of delirium. Examples include the Delirium Rating Scale—Revised—98 (5, 6), including a version for use with children (7); the Delirium Observation Screening Scale (8); and the Confusion Assessment Method for the Intensive Care Unit (9–11). Instruments have variable concordance with the diagnostic criteria detailed in DSM-IV, and each instrument may be better suited to particular clinical contexts.

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## ▶ **NEUROPATHOPHYSIOLOGIC MODELS**

The etiologic heterogeneity of delirium is a persistent theme in the more recent literature (10, 12–15). The role of the anticholinergic properties of a variety of medications continues to be noted (16, 17). In a patient population with a mixture of putative causes of delirium, regional cerebral perfusion was consistently reported to show significant reductions during periods of delirium in comparison with blood flow patterns after recovery (18). The possibility of a final common pathway, involving acetylcholine and dopamine, has been advanced (15, 19, 20). The feature of sleep/wake cycle disruption in delirium has led others to speculate about the possible role of melatonin (21, 22). Although more research could prove illuminating, there are practical challenges to performing controlled clinical investigations with delirious persons, thoughtfully summarized by Meagher (23). Despite these challenges, there is pressing need for more research in this area.

## ▶ **MANAGEMENT**

Management of patients with delirium continues to focus on ensuring safety from behavioral disturbances while simultaneously assessing for a probable etiology and definitive treatment. Safety can best be addressed by combining environmental, behavioral, and pharmacologic means. In addition to the alterations in the hospital environment noted in the 1999 guideline, low-tech but potentially labor-intensive changes in nurse–patient interactions, as well as flexibility within hospital systems to individualize processes of care, may be able to reduce the impact of delirium (24). Behavioral programs can be highly effective but appear to be critically dependent on adherence to the details of the program (25).

Current pharmacological interventions expand the options reported in the 1999 guideline. Data supporting the use of first-generation antipsychotic medications (12) have been joined by case reports, case series, and a limited number of open-label trials supporting the use of second-generation antipsychotic medications (26) such as olanzapine (27–29), risperidone (30–32), ziprasidone (33), and quetiapine (34–38). The prophylactic use of haloperidol has been examined in hip surgery patients in a prospective, double-blind, placebo-controlled trial (39), and although the incidence of delirium was not significantly altered by the intervention, there were significant differences in important secondary measures (duration of delirium, length of stay, Delirium Rating Scale scores) in this prevention trial. Given the dearth of research data, there is a clear need for prospective, randomized, controlled efficacy trials of second-generation antipsychotic medications for the management of delirium. Cholinesterase inhibitors also have shown success in managing delirium in some case reports, but usually for reversing drug-induced delirium, both for donepezil (40–43) and rivastigmine (44). The avoidance of benzodiazepines except for particular indications (e.g., alcohol or  $\gamma$ -hydroxybutyric acid [GHA] withdrawal delirium, delirium related to seizures) continues to be a recommendation (12). In addition, if patients in critical care settings are already receiving high doses of parenteral lorazepam, the clinician will want to be alert for toxicity (e.g., renal dysfunction, hyperosmolar metabolic acidosis) associated with lorazepam's propylene glycol vehicle (45–47).

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