FIVE THINGS TO KNOW ABOUT ...

Hospital-acquired delirium in older adults

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Delirium is a commonly acquired neuropsychiatric syndrome among older adults in hospital

The *Diagnostic and Statistical Manual of Mental Disorders,* fifth edition (DSM-5) classifies delirium as a syndrome of disturbed attention and awareness that has an acute onset, fluctuating course and is associated with an additional disturbance in cognition.[1] Delirium may be hypoactive (lethargy and reduced psychomotor functioning), hyperactive (agitation and hallucinations) or mixed.[2] The incidence of hospital-acquired delirium among older adults is 14%–56%, with higher rates in postoperative and intensive care settings.[3]

The causes of delirium are multifactorial and often iatrogenic

Common causes include medications, infections, hypoxia, and fluid, electrolyte and metabolic disturbances (Appendix 1, available at www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.130299/-/DC1). Hospital-acquired delirium is often iatrogenic, and independent precipitants include the use of physical restraints, malnutrition, more than 3 new medications and bladder catheterization.[6]

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Delirium is underdiagnosed; the use of validated bedside instruments may improve detection

Although the new DSM-5 criteria for delirium have not been studied, the criteria in the previous version (DSM-IV) were subjective, resulting in nondetection rates of 32%–67%.[4] Bedside instruments may improve identification, with the best evidence supporting the Confusion Assessment Method (CAM).[2,5] This tool (available at www.hospitalelderlifeprogram.org) takes 5 minutes to administer. It identifies 4 features of delirium: acute onset and fluctuating course (feature 1), inattention (2), disorganized thinking (3) and altered level of consciousness (4).[5] The diagnosis of delirium using CAM requires the presence of features 1 and 2 and either 3 or 4. This tool has a sensitivity of 94%–100%, specificity of 90%–95%,[5] positive likelihood ratio of 9.6 (95% confidence interval [CI] 5.8–16.0) and a negative likelihood ratio of 0.16 (95% CI 0.09–0.29) for diagnosing delirium.[2]

Management involves addressing the underlying cause

The underlying cause should be addressed. Nonpharmacologic treatments involve reorientation, vision and hearing optimization and creating a supportive environment that minimizes noise and staff and room changes.[3] Antipsychotic medication should be reserved for patients at risk of harm or interruption of essential therapy. Haloperidol, risperidone and olanzapine have equal efficacy.[7]

For references, please see Appendix 2, available at www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.130299/-/DC1

Prevention is critical because delirium is an independent determinant of hospital outcomes

About 30%–40% of cases of delirium are preventable.[8] Randomized trials show that interventions addressing multiple risk factors (cognition, mobility, vision, hearing, electrolyte and volume status, sleep, pain and medications) can prevent delirium.[9] A well-known example is the Hospital Elder Life Program, which includes an interdisciplinary team and trained volunteers to target these risk factors.[10] Delirium increases hospital length of stay, mortality and admission to a long-term care facility, and it may have long-lasting effects on cognition.[8]

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