

Risk Versus Behavior: Acute Psychotropic Medication Exposure in Cognitively Impaired Adults

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Older adults with dementia receive higher risk sedatives in the hospital compared to older adults without cognitive impairment.

INTRODUCTION	METHODS	RESULTS	CONCLUSIONS	REFERENCES																																																																																																
Dementia affects 1 in 10 older U.S. adults.¹ Persons living with dementia (PLWD) experience double the rate of emergency department (ED) visits and hospitalizations compared to older adults without dementia.² The most common clinical challenge involves managing behavioral symptoms, such as agitation or hyperactive delirium, which accounts for up to 60% of acute presentations.³ Agitation symptoms are typically managed with high-risk sedatives/psychotropic medications (antipsychotics and benzodiazepines), which goes against known clinical guidelines.⁴ Hospital psychotropic medication use is associated with increased fall risk, length of stay, functional decline, and repeated ED/hospital visits.^{5,6} The objective of this study was to characterize patterns of acute psychotropic medication use among older adults in the ED and to examine any differences in PLWD.	Study: Retrospective single-center, cross-sectional study at a large, Midwestern, academic medical center in 2023. Sample: 500 adults aged ≥ 55 years who received antipsychotics and benzodiazepines (psychotropic meds) in the ED or hospital. Variables: Demographics, history of dementia, psychotropic medication orders, number of medication administrations per patient, home prescriptions, chief complaints. Outcomes: Admission status, frequency of psychotropic meds used, fraction of psychotropic meds which were new to the patient, and clinical indications for psychotropic meds used (behavioral, procedural, seizures, nausea, alcohol withdrawal, other). Outcomes were stratified by cognitive status: dementia (with and without delirium), delirium (without dementia), and neither.	• 479 total patients: Mean age = 68, female = 49%, White = 68%, admission rate = 89%, new medications = 81%, dementia = 27%. • Outcomes with increased odds in dementia (p-value <0.05): 2x receiving typical antipsychotics, 4x receiving haloperidol, 4x chief complaint of falls. The figure consists of two horizontal bar charts. The top chart, titled 'Clinical Indications for Hospital Psychotropic Use in Older Adults Stratified by Cognitive Status (n=479)', shows the number of patients for various indications across three groups: Dementia (with/without delirium) in purple, Delirium (unknown dementia) in orange, and Neither Delirium nor Dementia in green. The bottom chart, titled 'Acute Complaints in Older Adults Receiving Psychotropic Medications Stratified by Cognitive Status (n=479)', shows the number of patients for various complaints across the same three groups. Both charts have a legend at the bottom right. <table><caption>Clinical Indications for Hospital Psychotropic Use in Older Adults Stratified by Cognitive Status (n=479)</caption><tr><th>Indication</th><th>Dementia (with/without delirium), n=130</th><th>Delirium (unknown dementia), n=152</th><th>Neither Delirium nor Dementia, n=197</th></tr><tr><td>Post-operative</td><td>10</td><td>10</td><td>10</td></tr><tr><td>Headache/Vertigo</td><td>10</td><td>10</td><td>10</td></tr><tr><td>Ventilator/Life Support</td><td>10</td><td>10</td><td>10</td></tr><tr><td>Seizure</td><td>10</td><td>10</td><td>10</td></tr><tr><td>Pain</td><td>10</td><td>10</td><td>10</td></tr><tr><td>Sleeplessness</td><td>10</td><td>10</td><td>10</td></tr><tr><td>CNS/Alcohol Withdrawal</td><td>10</td><td>10</td><td>10</td></tr><tr><td>Anxiety/Anoscopy</td><td>10</td><td>10</td><td>10</td></tr><tr><td>Psychiatric Disorder / Home Medication</td><td>10</td><td>10</td><td>10</td></tr><tr><td>Nausea/Post-emetic</td><td>10</td><td>10</td><td>10</td></tr><tr><td>Procedural/Intervention</td><td>10</td><td>10</td><td>10</td></tr><tr><td>Behavioral/Agitation</td><td>10</td><td>10</td><td>10</td></tr></table><table><caption>Acute Complaints in Older Adults Receiving Psychotropic Medications Stratified by Cognitive Status (n=479)</caption><tr><th>Chief Complaint</th><th>Dementia (with/without delirium), n=130</th><th>Delirium (unknown dementia), n=152</th><th>Neither Delirium nor Dementia, n=197</th></tr><tr><td>Pain (any typification)</td><td>10</td><td>10</td><td>10</td></tr><tr><td>Respiratory Symptoms</td><td>10</td><td>10</td><td>10</td></tr><tr><td>Altered Mental Status</td><td>10</td><td>10</td><td>10</td></tr><tr><td>Falls/Gait Instability</td><td>10</td><td>10</td><td>10</td></tr><tr><td>Nausea/Vomiting</td><td>10</td><td>10</td><td>10</td></tr><tr><td>Cardiac Issue</td><td>10</td><td>10</td><td>10</td></tr><tr><td>Fever/Infection</td><td>10</td><td>10</td><td>10</td></tr><tr><td>Fatigue/Lethargy</td><td>10</td><td>10</td><td>10</td></tr><tr><td>Weakness</td><td>10</td><td>10</td><td>10</td></tr><tr><td>Other</td><td>10</td><td>10</td><td>10</td></tr></table>	Indication	Dementia (with/without delirium), n=130	Delirium (unknown dementia), n=152	Neither Delirium nor Dementia, n=197	Post-operative	10	10	10	Headache/Vertigo	10	10	10	Ventilator/Life Support	10	10	10	Seizure	10	10	10	Pain	10	10	10	Sleeplessness	10	10	10	CNS/Alcohol Withdrawal	10	10	10	Anxiety/Anoscopy	10	10	10	Psychiatric Disorder / Home Medication	10	10	10	Nausea/Post-emetic	10	10	10	Procedural/Intervention	10	10	10	Behavioral/Agitation	10	10	10	Chief Complaint	Dementia (with/without delirium), n=130	Delirium (unknown dementia), n=152	Neither Delirium nor Dementia, n=197	Pain (any typification)	10	10	10	Respiratory Symptoms	10	10	10	Altered Mental Status	10	10	10	Falls/Gait Instability	10	10	10	Nausea/Vomiting	10	10	10	Cardiac Issue	10	10	10	Fever/Infection	10	10	10	Fatigue/Lethargy	10	10	10	Weakness	10	10	10	Other	10	10	10	• Behavioral symptoms are the reason for half of psychotropic medications used in older patients during emergency visits and hospitalizations. • 1 in 4 adults who receive acute psychotropic medications have dementia and are highly exposed to haloperidol. • Current medical practice may be contributing to the accelerated functional decline in dementia. • There is an urgent need for standardized, best practice approaches for managing acute neuropsychiatric symptoms in all older adults. • Future work is needed for medication stewardship, decision-making support tools, dementia education, and trials of non-pharmacologic therapies in the acute care setting.	1. Manly JJ, Jones RN, Langa KM, et al. Estimating the Prevalence of Dementia and Mild Cognitive Impairment in the US: The 2016 Health and Retirement Study Harmonized Cognitive Assessment Protocol Project. <i>JAMA Neurol.</i> 2022;79(12):1242-1249. doi:10.1001/jamaneurol.2022.3543 2. 2025 Alzheimer's disease facts and figures. <i>Alzheimers Dement.</i> 2025;21(4):e70235. doi:10.1002/alz.70235 3. Anantapong K, Jiraphan A, Aunjitsakul W, et al. Behavioural and psychological symptoms of people with dementia in acute hospital settings: a systematic review and meta-analysis. <i>Age Ageing.</i> 2025;54(1):afaf013. doi:10.1093/ageing/afaf013 4. Panel B the 2023 AGSBCUE. American Geriatrics Society 2023 updated AGS Beers Criteria® for potentially inappropriate medication use in older adults. <i>J Am Geriatr Soc.</i> 2023;71(7):2052-2081. doi:10.1111/jgs.18372 5. Seppala LJ, Wermelink AMAT, de Vries M, et al. Fall-Risk-Increasing Drugs: A Systematic Review and Meta-Analysis: II. Psychotropics. <i>J Am Med Dir Assoc.</i> 2018;19(4):371.e11-371.e17. doi:10.1016/j.jamda.2017.12.098 6. Kennedy M, Koehl J, Gao J, Ciampa KA, Hayes BD, Camargo Jr CA. Use of antipsychotic and sedative medications in older patients in the emergency department. <i>J Am Geriatr Soc.</i> 2022;70(3):731-742. doi:10.1111/jgs.17590
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