

Characterization of Patients With Acute Agitation and Schizophrenia Treated in Emergency Departments in the United States: A Retrospective Chart Review

S Hokett, PharmD, MS, MSc¹; MP Wilson, MD, PhD²; M Martel, MD³; G Vilke, MD⁴; M Kwong, PharmD¹ ¹BioXcel Pharmaceuticals, New Haven, CT, USA; ²University of Arkansas Medical Sciences, Little Rock, AR; ³Hennepin County Medical Center, Minneapolis, MN; ⁴University of California, San Diego, San Diego, CA

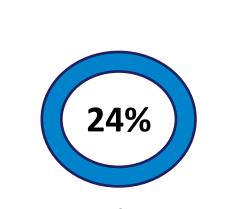
BACKGROUND

Schizophrenia affects about 2.65 million people in the United States (US)¹ and costs over \$46.6 billion in direct healthcare costs, with 24% of these costs from Emergency Department (ED) visits, medications, and inpatient/outpatient care.² Agitation is a common presenting feature in the emergency setting.^{3,4} In addition to acute costs, chronic conditions complicate management with annual direct medical healthcare spending (inflation adjusted) of \$148 billion for hypertension, \$212 billion for obesity, and \$262 billion for diabetes.⁵⁻⁷

A retrospective chart review of patients with schizophrenia treated in a community mental health center reported about twice the rates of obesity (58%) and diabetes (24%) compared to the population control group with 27% obesity and 12% diabetes.⁸ Furthermore, substance use disorders frequently complicate ED presentations of patients with schizophrenia and acute agitation.



An estimated 2.65 million patients in the US live with schizophrenia¹



24% of the \$46.6 billion in direct healthcare costs are incurred in the ED² To describe patient demographics, payer mix, comorbidities, and substance use in patients with agitation and schizophrenia presenting to 4 US EDs between 2019 and 2020.





Using best practices for retrospective reviews,^{9,10} patients presenting to the ED with agitation and schizophrenia were identified from 4 hospitals across the US, including Arkansas, Minnesota(2), and California. Patients were identified from Epic electronic health recording systems for 24 months during 2019 and 2020.

Target retrospective data were extracted, compiled, and summarized using descriptive statistics. Target data included patient demographics, payer mix, comorbidities, and substance use.

OBJECTIVE



METHODS



RESULTS

Patients: 121 patients with agitation and schizophrenia treated in the 4 ED sites were included in this analysis

Demographics:

63% Male; 37% Female Mean age - 41 years Ethnicity Self-Reported<u>:</u> Black/African American – 44% White – 42% Asian – 3% Other – 11% **Insurance Types (79 Patients):** Medicare – 38%

Medicaid – 35% Commercial – 19% Self-pay – 4%

Other – 4%

Other Substances Used:

Psychoactive agents – 16%

Cannabis – 12%

Stimulants – 12%

Alcohol – 10%

Comorbidities Reported:

Hypertension – 42% Obesity – 25%

Diabetes –20%



\$

228







KEY POINTS

- Patients with agitation and schizophrenia present to the ED with significant comorbidities and substance use. These underlying conditions complicate acute management and contribute to increased healthcare costs.
- 73% of patients with Medicaid or Medicare insurance.
- High rates of comorbid hypertension and diabetes.
- Data from these 4 centers across the US (SE, West, Midwest) may not be representative of acute agitation management in other US EDs. These data provide an opportunity to explore strategies to identify, triage, and medically treat the agitated patient to reduce ED and inpatient burden.

. Cloutier M, Aigbogun MS, Guerin A, et al. The Economic Burden of Schizophrenia in the United States in 2013. J Clin Psychiatry. 2016;77(6):764-771. doi:10.4088/JCP.15m10278 3. Zeller SL, Holloman Jr GH, Wilson MP. Management of Agitation. In: Psychiatry. 2015;2479-2486. 4. Sachs GS. A review of agitation in mental illness: burden of illness and underlying pathology. J Clin Psychiatry. 2016;77(6):764-771. doi:10.4088/JCP.15m10278 3. Zeller SL, Holloman Jr GH, Wilson MP. Management of Agitation. In: Psychiatry. 2015;2479-2486. 4. Sachs GS. A review of agitation in mental illness: burden of illness and underlying pathology. J Clin Psychiatry. 2015;2479-2486. 4. Sachs GS. A review of agitation in mental illness: burden of illness and underlying pathology. J Clin Psychiatry. 2016;77(6):764-771. doi:10.4088/JCP.15m10278 3. Zeller SL, Holloman Jr GH, Wilson MP. Management of Agitation. In: Psychiatry. 2016;77(6):764-771. doi:10.4088/JCP.15m10278 3. Zeller SL, Holloman Jr GH, Wilson MP. Management of Agitation. In: Psychiatry. 2016;77(6):764-771. doi:10.4088/JCP.15m10278 3. Zeller SL, Hollowan Jr GH, Wilson MP. Management of Agitation. In: Psychiatry. 2016;77(6):764-771. doi:10.4088/JCP.15m10278 3. Zeller SL, Hollowan Jr GH, Wilson MP. Management of Agitation. In: Psychiatry. 2016;77(6):764-771. doi:10.4088/JCP.15m10278 3. Zeller SL, Hollowan Jr GH, Wilson MP. Management of Agitation. In: Psychiatry. 2016;77(6):764-771. doi:10.4088/JCP.15m10278 3. Zeller SL, Hollowan Jr GH, Wilson MP. Management of Agitation. In: Psychiatry. 2016;77(6):764-771. doi:10.4088/JCP.15m10278 3. Zeller SL, Hollowan Jr GH, Wilson MP. Management of Agitation. In: Psychiatry. 2016;77(6):764-771. doi:10.4088/JCP.15m10278 3. Zeller SL, Hollowan Jr GH, Wilson MP. Management of Agitation. In: Psychiatry. 2016;77(6):764-771. doi:10.4088/JCP.15m10278 3. Zeller SL, Hollowan Jr GH, Wilson MP. Management of Agitation. In: Psychiatry. 2016;77(6):764-771. doi:10.4088/JCP.15m10278 3. Zeller SL, Hollowan Jr GH, Wilson MP. Management of Agitation. In: Psych