Demographic and Psychographic Trends Among Patients Discharged on Multiple Antipsychotics

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Background

The concurrent use of multiple antipsychotics can lead to increased side effects and poor outcomes for psychiatric patients, however, this practice is commonly seen within the field of psychiatry. Research shows that use of two or more antipsychotic medications occurs in 4% to 35% of outpatients and at a rate even higher among inpatients, between 30% to 50%. The American Psychiatric Association generally advises to avoid prescribing two antipsychotics concurrently, as there is limited evidence regarding the efficacy and safety of these practices.

Objective

This study strives to examine if there are significant trends among the demographics of patients who are prescribed two or more antipsychotics, such as age, race, gender, and length of stay.

Methods

A retrospective review of psychiatric patient records from 1/1/2016 to 6/1/2022 was conducted. The records only included males and females age 18 – 65 who were hospitalized and treated in the inpatient setting. Pregnant and incarcerated patients were excluded from the study. This resulted in a total of 63427 records.

Study period: January 2016 to June 2022

Age: 18-65 — Exclusions: Pregnant, Incarcerated

Total Records: 63427

Results

Table 1. Bivariate analysis for categorical variables by number of antipsychotics prescribed

Number of Antipsychotic Meds:		Zero		One		Two		Three or more		Total		
		Count	Freq (%)	Count	Freq (%)	Count	Freq (%)	Count	Freq (%)	Count	Freq (%)	P-value
Sex	F	17014	45.28	8972	41.84	1488	40.19	281	39.91	27755	43.76	<0.001*
	M	20565	54.72	12470	58.16	2214	59.81	423	60.09	35672	56.24	
	sum	37579	100.00	21442	100.00	3702	100.00	704	100.00	63427	100.00	
Race	NONWHITE	11274	30.00	7925	36.96	1461	39.47	275	39.06	20935	33.01	<0.001*
	WHITE	26305	70.00	13517	63.04	2241	60.53	429	60.94	42492	66.99	
	Sum	37579	100.00	21442	100.00	3702	100.00	704	100.00	63427	100.00	

Table 2. Bivariate analysis for continuous variables by number of antipsychotics prescribed

	Zero			One			Two			Three or more			Total			P-value*
	Mean	SD	Median	Mean	SD	Median	Mean	SD	Median	Mean	SD	Median	Mean	SD	Median	
Age	43.10	56	44	41.07	53	40	41.15	53	40	42.17	55	42	43.10	56	44	<0.001
LOS	5.34	6	3	6.40	7	4	9.18	10	6	15.60	14	8	5.34	6	3	<0.001

Table 3. Zero-Inflated Poisson Regression

		P-value	IRR	95% Confidence Interval	
LOS		<0.001	0.3501	0.3285	0.3731
AGE		0.0000	0.9777	0.9714	0.9840
SEX	Male	0.0000	0.5727	0.4953	0.6622
	Female				
RACE	White	0.0033	1.2491	1.0768	1.4490
	Non-White				

Discussion

- Table 1 shows frequency in which 0, 1, 2 and 3 or more antipsychotics are prescribed. The table indicates that as the number of antipsychotics prescribed increases, so does frequency in the groups of male and non-white. Frequency decreases as number of antipsychotics increases in the groups of female and white.

- Table 2 indicates that as the number of antipsychotics prescribed increases, so does the length of patient stay in the hospital. Differences is age of patients prescribed 0, 1, 2 and three or more antipsychotics is minimal, which is also supported in table 3.

- When examining table 3, female (for gender) and Non-white (for race) are the reference groups. For race, table shows that if that patient is white (compared to non-white), the average number of antipsychotics prescribed upon discharged increases by 1.25 times. Similarly, for gender, if a patient is male (compared to female) the number of antipsychotics prescribed on discharged increases by .57 times if antipsychotics are prescribed.

Conclusion

The study of this sample population does support that the prescription of multiple antipsychotics is influenced by gender, race, age and LOS but unfortunately some of the analysis is contradictory. Our study can help guide future research in to why there are demographic discrepancies in the prescription of multiple antipsychotics and address certain biases that may be present among prescribers.

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