

## Introduction

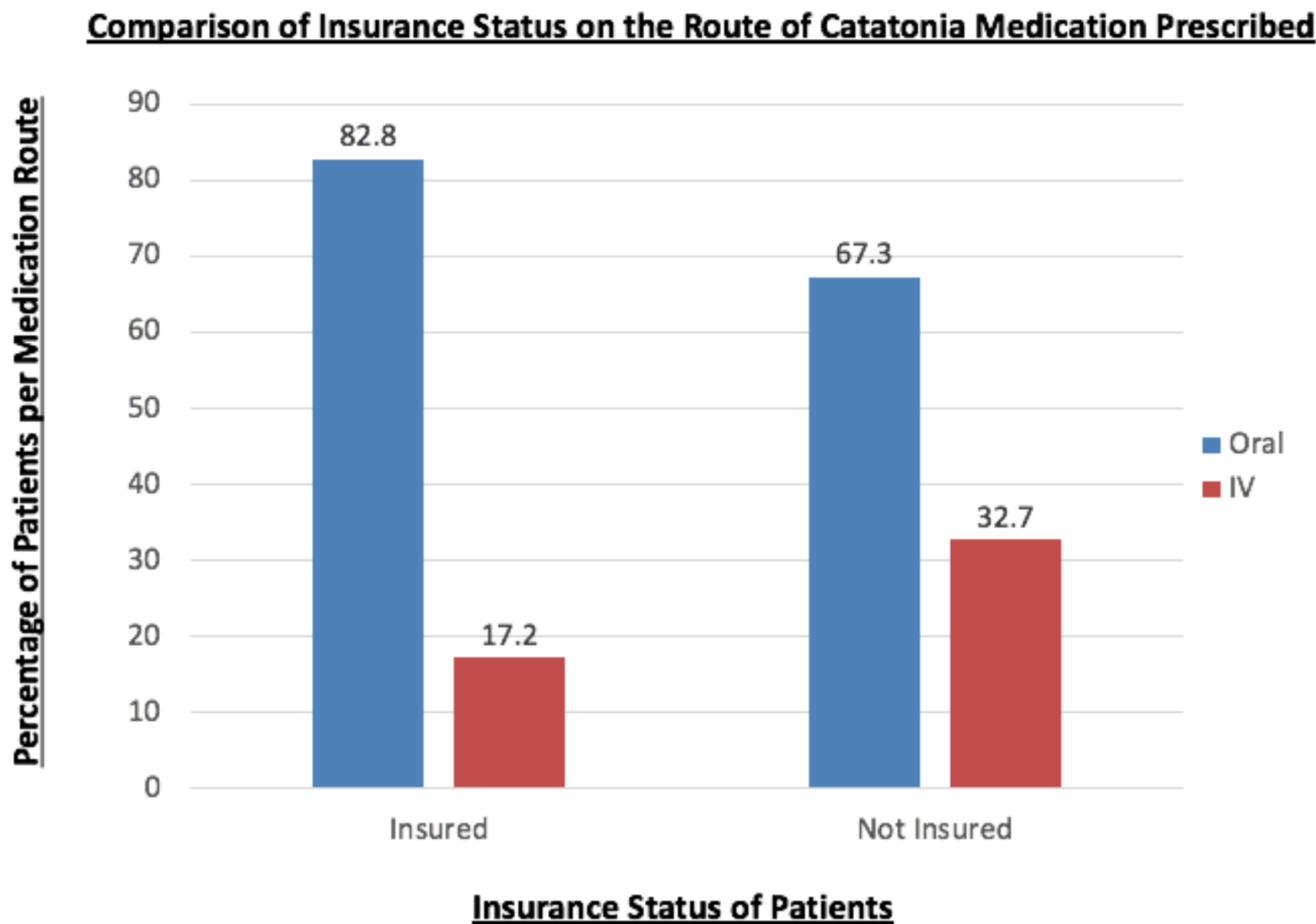
- Catatonia is a neuropsychiatric syndrome which is associated with several mental illnesses and has a much more favorable course if treated quickly. <sup>1</sup>
- Drugs to treat catatonia may be given intravenously rather than orally if a patient is in a poor mental state.<sup>1</sup>
- Insurance status may play a role in the state of patients with severe mental illness (SMI), as uninsured patients with SMI are less likely to have received appropriate care than insured patients. <sup>2</sup>
- We investigated whether there is a difference between the proportion of insured patients who had to have drugs administered intravenously (as opposed to being on oral drugs) and looked for the same proportion in uninsured patients.

## Methodology

- Data from Cerner Health Facts EHR with 13,994 patients with route of medication use for diagnosis of Catatonia.
- Encounters were categorized based on the Route Description into Oral, Intravenous, or Other. Comparisons were made between these groups along with comparison between insured and uninsured patients, as well as regional. differences. All comparisons were significantly different between groups (p < 0.001) except for differences in gender.
- Statistical analysis was performed using t-test for continuous data and Chi-square comparisons for categorical data. All tests performed were two-tailed and a p-value less than 0.05 was considered statistically significant. Analyses were performed using R Version 3.6.1 in RStudio.

## Results

- The results of our data analysis showed that patients who were insured more often used oral catatonia medications and patients who did not have any insurance more often used catatonia medications infused intravenously (IV). These results were compared with Chi-square analysis and were statistically significant (P<0.001).
- For encounters where the patient was insured, the patient encounter more often utilized the oral route of administration (82.8% in insured patients vs. 67.3% in uninsured patients). This result is significant (P<0.001).
- For encounters where the patient was not insured, the patient encounter more had a higher utilization of the IV route of administration (32.7% in uninsured patients vs. 17.2% in insured patients). This result is significant (P<0.001).



## Summary/Conclusion

- The results show that there is a positive association between the “uninsured” status of the patient and the proportion of catatonia patients who receive intravenous infusion of anti-catatonic drugs.
- The findings are consistent with the points made in Pelzer et al. (2018) and the Institute of Medicine (2002), suggesting that uninsured patients may have more severe forms of mental illness, often requiring alternative routes of drug infusion.
- The findings may warrant a study on the effectiveness of IV versus oral infusion of anti-catatonic drugs to ascertain whether there is a disparity in the quality of catatonia treatment based on insurance status.
- Future studies may focus on other patient populations with neuropsychiatric disorders to see if the results can be generalized.
- Future studies may also focus on other factors that affect the route of administration of anti-catatonic drugs, including ICD diagnosis and/or rural vs. urban residence.

## References

- 1 -Pelzer AC, van der Heijden FM, den Boer E. Systematic review of catatonia treatment. *Neuropsychiatr Dis Treat*. 2018;14:317–326. Published 2018 Jan 17. doi:10.2147/NDT.S147897
- 2 - Institute of Medicine (US) Committee on the Consequences of Uninsurance. (2002). In *Care Without Coverage: Too Little, Too Late* (pp. 47-90). Washington, DC: National Academies Press.