

Implementation of a Proactive CL Model: Use of ICD-10 Data for Targeted Adoption in a Veteran Population

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Background

Multi-organ comorbidity among veterans substantially increases health care utilization and spending in this population (1). CL psychiatry is well positioned to address the high burden of mental health needs of veterans with medical comorbidities given its collaborative role within healthcare. Proactive CL is an innovative model shown to be effective in caring for patients within the hospital while reducing length of stay and decreasing overall cost (2). To date, a proactive model has not been studied within the Veteran's Administration (VA). We examined local data to inform implementation of a proactive service in this population.

Methods

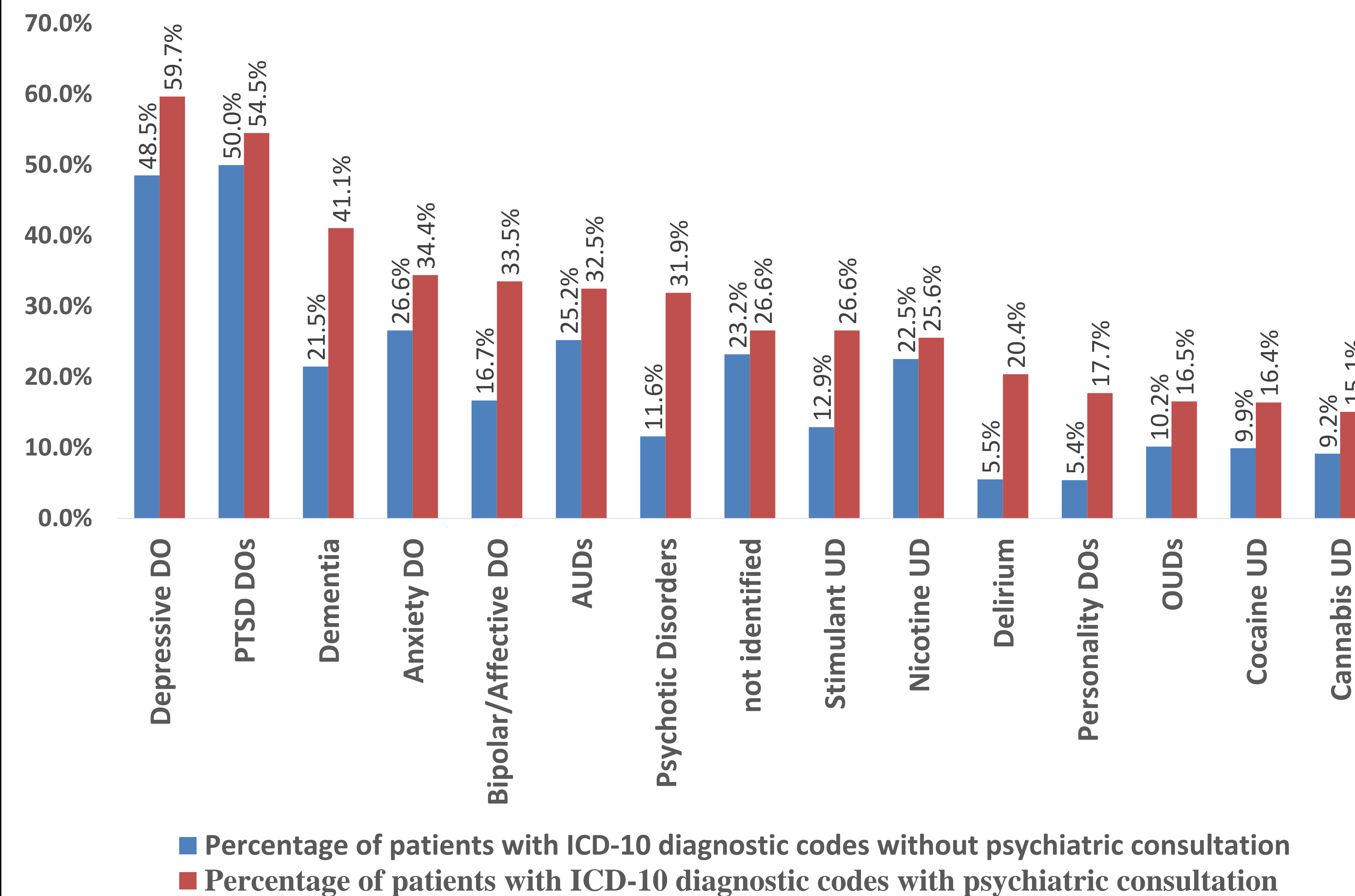
Using the VA's computerized patient record system (CPRS), we studied ICD-10 diagnostic codes by primary teams and psychiatric consultants corresponding to dementia, delirium, psychotic disorders, bipolar affective disorders, depression, anxiety disorders, PTSD, personality disorders and substance use disorders (UD) including alcohol, opioid, cannabis, cocaine, nicotine, and stimulants in veterans admitted to the VA Greater Los Angeles medical, surgical and ICU units between 01/01/2019 and 12/31/2021. Using logistic regression, we calculated the likelihood of receiving diagnostic groupings among inpatients receiving psychiatric consultation compared to admissions without consult.

ICD-10 Diagnostic Groupings

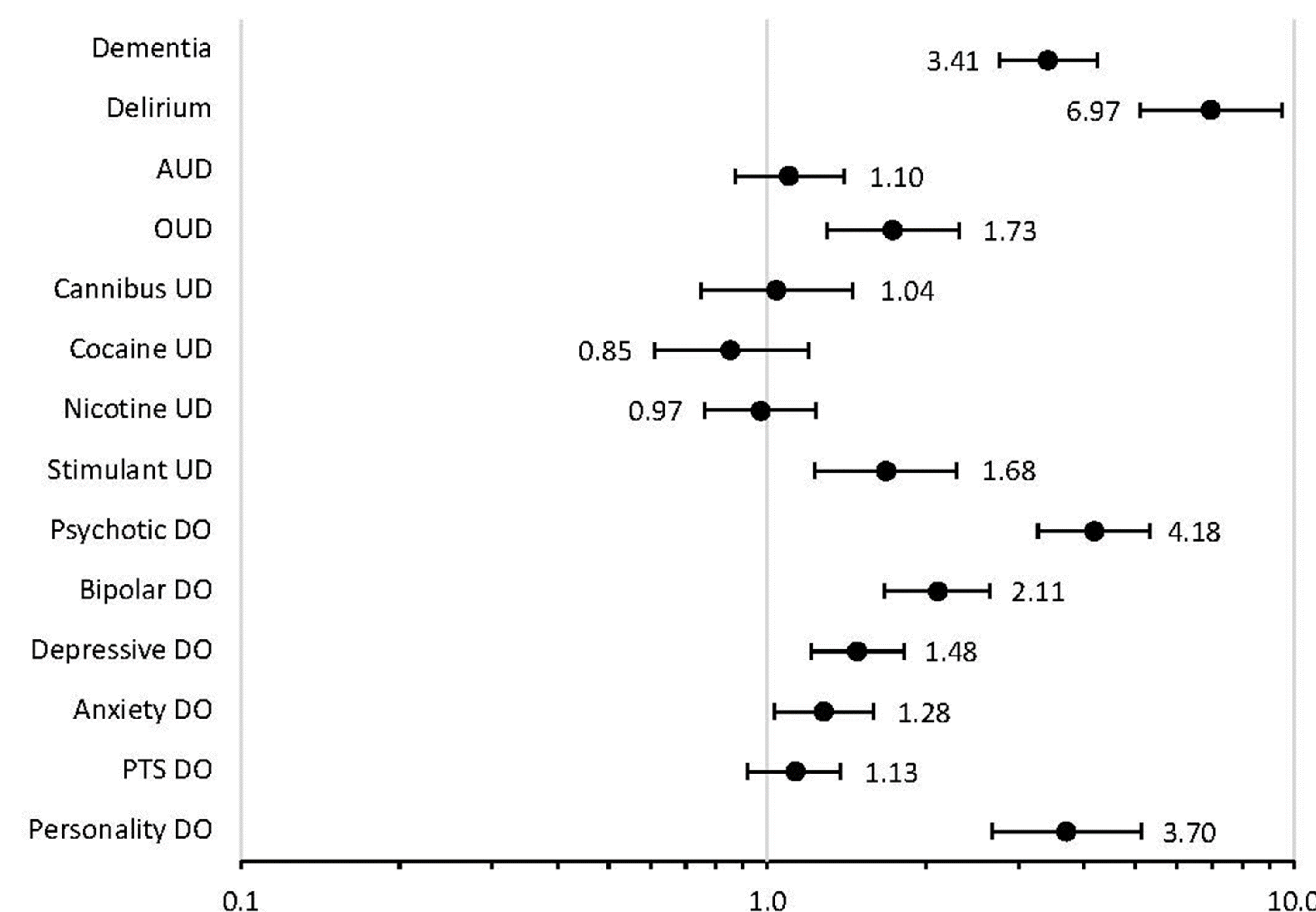
Dementia	Personality Disorders
Delirium	Alcohol Use Disorder
Depression	Tobacco Use Disorder
Bipolar Affective Disorders	Cannabis Use Disorder
Anxiety Disorders	Opioid Use Disorder
Psychotic Disorders	Cocaine Use Disorder
Post Traumatic Stress Disorder	Stimulant Use Disorder

Figures

Percentage of Patients with ICD-10 Diagnostic Codes with and without Psychiatric Consult



Odds Ratios of Diagnostic Groups among Inpatients Receiving a Psychiatric Consult



Results

The sample consisted of 4,400 veterans with relevant ICD-10 diagnoses coded without psychiatric consultation and 670 psychiatric consults.

Prevalence of diagnostic groupings within medicine, surgery, and ICU, (compared with psychiatry consultation) were as follows: Dementia: 21.5% (41.1%), Delirium: 5.5% (20.4%), Alcohol UD: 25.2% (32.5%), Opioid UD: 10.2% (16.5%), Cannabis UD: 9.2% (15.1%), Cocaine UD: 9.9% (16.4%), Nicotine UD: 22.5% (25.6%), Stimulant UD: 12.9% (26.6%), Psychotic Disorders: 11.6% (31.9%), Bipolar Affective Disorders: 16.7% (33.5%), Depression: 48.5% (59.7%), Anxiety Disorders: 26.6% (34.4%), PTSD: 50.0% (54.5%), and Personality Disorders: 5.4% (17.7%).

The odds of diagnosis were higher in every grouping among veterans receiving a consult (except cannabis and cocaine UD) and all were statistically significant except PTSD and alcohol, cannabis, cocaine, and nicotine UD.

Discussion

Veterans who received psychiatric consultation were 6.97 times more likely to be diagnosed with delirium, 4.17 times with psychotic disorders, 3.70 times with personality disorders and 3.42 times with dementia.

These results suggest an under-recognition of delirium and highlight additional avenues of potential intervention in veterans with neurocognitive disorders, severe persistent mental illness, and personality disorders. Future directions include using existing local ICD-10 data to develop targeted proactive models to address site-specific demands at VA hospitals nationwide.

References

- Zulman et al, 2015 PMID: 25882486 DOI: 10.1136/bmjopen-2015-007771
- Oldham et al, 2021, PMID: 33970855 DOI: 10.1016/j.jaclp.2021.01.005