

Antipsychotic and Benzodiazepine use in Hospital Inpatients with Coded Delirium – A Retrospective Medical Record Audit.

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Background:

The use of psychotropic agents in delirium has been associated with poorer patient outcomes and increased mortality.¹ Health services are required to monitor psychotropic administration amongst patients with delirium.²

Despite this requirement, there is limited published data in Australia on inpatient psychotropic usage. What has been published has focused on specific patient groups, and therefore has limited generalisability.^{3,4} This void in the literature restricts health organisations' ability to benchmark and therefore determine if their local rate of psychotropic use is appropriate.

Two of the most commonly used psychotropic medications are antipsychotics and benzodiazepines.⁵

Aim:

To evaluate antipsychotic and benzodiazepine administration rates in patients with delirium across different hospital inpatient settings.

Method:

A retrospective medical record audit was undertaken of patients with coded delirium (International Classification of Diseases 10th Edition) admitted to three metropolitan hospitals between December 2020 and November 2021. Inpatient administration of antipsychotics and benzodiazepines were evaluated using electronic medical record reports with data matching occurring with a custom designed Microsoft Excel™ macro. Statistical analysis was undertaken in Microsoft Excel 2016 and R 3.6.3.

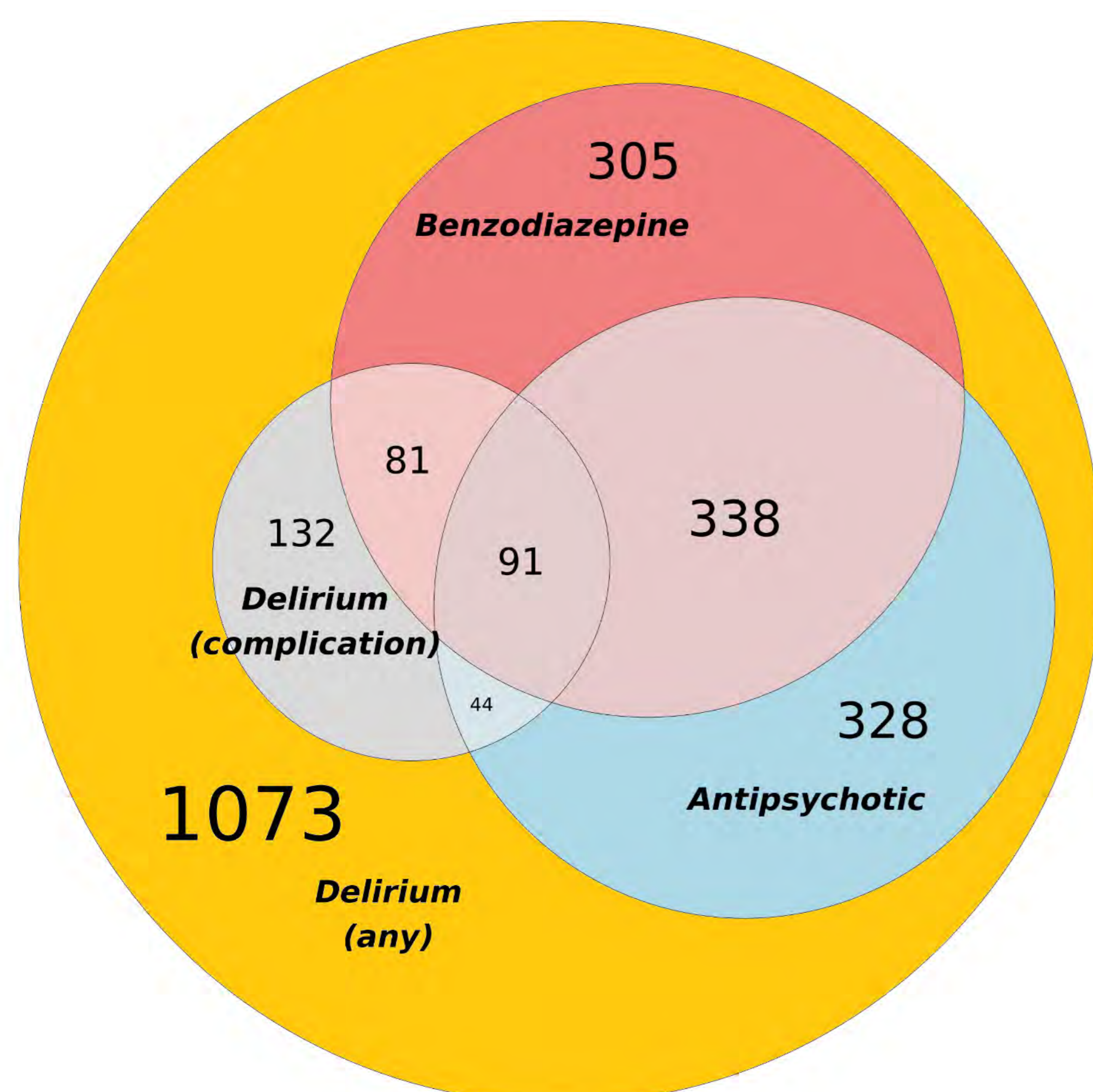


Figure 1: Psychotropic use amongst delirious patients

Results:

Overall, 2,392 patients were coded with delirium, of which 348 (15%) were coded as complications of care. Half of all patients with delirium received either an antipsychotic and/or a benzodiazepine. The overall rate of antipsychotic and benzodiazepine administration was 33% and 34% respectively (Figure 1). The administration of antipsychotics and benzodiazepines was higher in patients with complication-coded delirium compared to those without coded complication (20% vs 6% and 20% vs 12% respectively, $p < 0.001$).

Compared to those who did not have an antipsychotic administered, those who received an antipsychotic were younger (80 vs 82 years, $p < 0.001$), more likely to be male (54% vs 48%, $p = 0.005$) and had a longer mean length of stay (15 vs 11 days, $p < 0.001$). Similarly, compared to those who did not have a benzodiazepine administered, those who received a benzodiazepine were younger (62 vs 66 years, $p < 0.001$), more likely to be male (54% vs 48%, $p = 0.004$) and had a longer mean length of stay (15 vs 11 days, $p < 0.001$).

The most commonly administered antipsychotics and benzodiazepines are shown in table 1.

Patients most likely to receive a psychotropic:

Male
Younger
Longer length of stay



Figure 2: The typical person with delirium who will receive a psychotropic agent.⁶

Table 1: Most common Antipsychotics and Benzodiazepines administered

	Percentage
Antipsychotics	
Olanzapine	39%
Quetiapine	31%
Haloperidol	14%
Risperidone	11%
Aripiprazole	1.2%
Benzodiazepines	
Midazolam	28%
Oxazepam	17%
Diazepam	16%
Lorazepam	13%
Clonazepam	12%

Discussion:

This study provided a snapshot of psychotropic administration in people with delirium across a hospital network. This may provide a starting point for benchmarking between health services. This study did not determine the appropriateness of psychotropic use and this is an area requiring further research.

Conclusion:

Approximately half of the patients with coded delirium in this hospital network received either an antipsychotic and/or a benzodiazepine during their admission.

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