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Evaluation of Pharmacological Management of Aggressive Behaviours of Concern in the Inpatient Psychiatry Unit

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Introduction

Behaviours of concern (BOC) put patients at risk of harm to themselves, other patients and staff. However, managing harmful behaviour is complex.

In 2017, Alfred Health's Inpatient Psychiatry Unit (IPU) introduced a multidisciplinary Psychological BOC (Psy-BOC) team to promote less restrictive management of BOC. An initial review found that verbal de-escalation, pharmacological interventions and sensory modulation were the most common interventions [1]. Psy-BOC implementation reduced BOC episodes and restrictive interventions, including physical/mechanical restraint and seclusion. A limited number of studies describe the type and duration of pharmacological interventions used to manage aggressive BOCs. These studies identified that medication choices were usually appropriate, but follow-up was limited [2,3,4].

Aim

To describe the pharmacological management of BOC in Alfred Health's IPU. Additionally:

- Compare the pharmacological management of BOC with the current Alfred IPU Guideline;
- Determine if management of nicotine dependence is an additional factor contributing to BOC/Psy-BOC.

Methods

This study was a retrospective audit. Inclusion criteria were:

- patients admitted to IPU between October 1st 2020 to March 31st 2021; and,
- involved in a BOC classified as "aggressive", as documented in the organisations' RiskMan incident database, and received pharmacological therapy for management

A random selection of identified patients were reviewed for inclusion. Data were extracted from RiskMan and medical records. Descriptive analysis utilised Excel.

Results

One hundred and three (of 192) patients who experienced a BOC were reviewed, with 71 of these receiving pharmacological management. The median age was 42 years; the most frequent BOC type was classified as "physical" aggression; and the average length of stay was 17 days. Figure 1 shows the most relevant demographic information.

Figure 1: Demographic Information

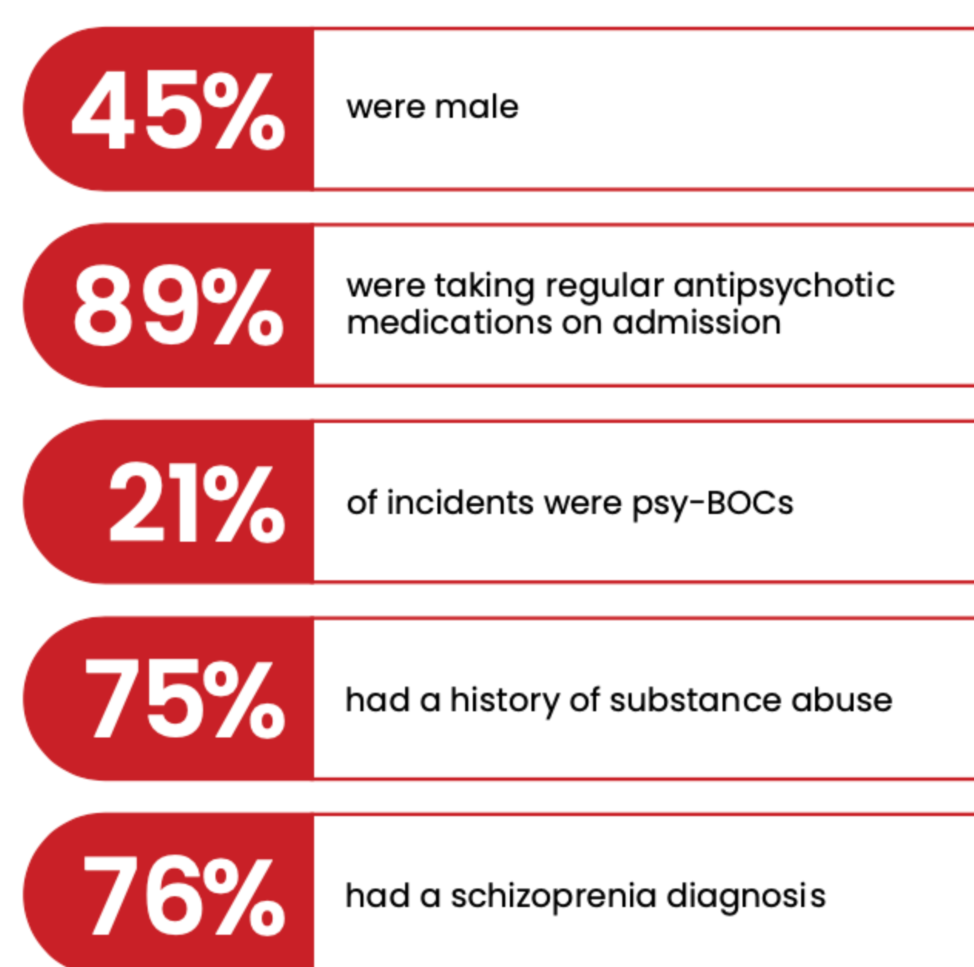
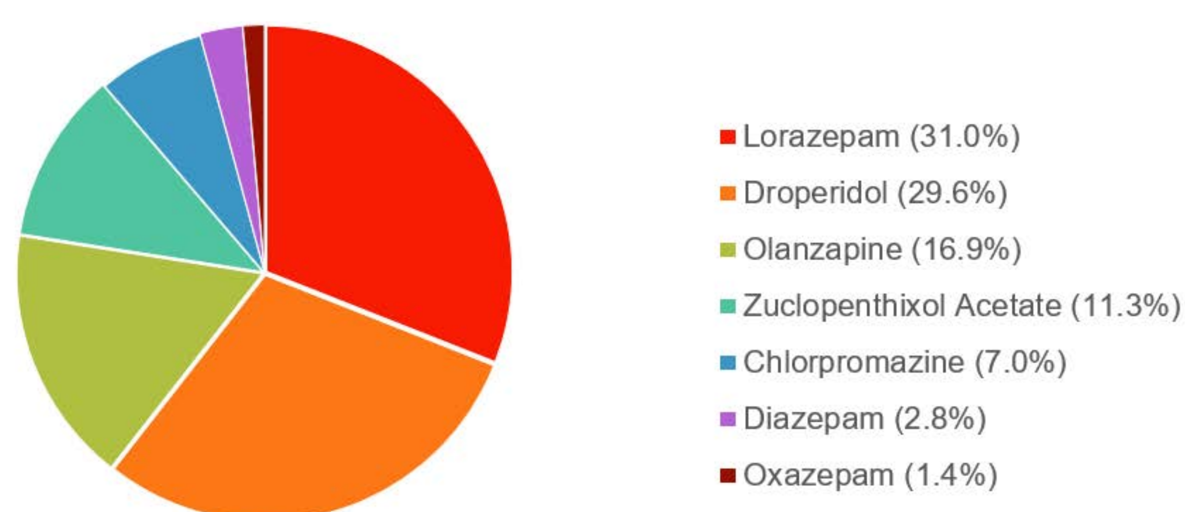


Figure 2 shows which medications were given first for BOC management. Lorazepam, droperidol, and olanzapine accounted for approximately three quarters of first medication administrations.

Figure 2: First Medication Given for BOC Management



Guideline adherence and monitoring parameters are shown in Table 1. ECG monitoring was the least consistently applied. 59 (83%) were current smokers. Assessment of nicotine dependence this cohort is shown in Table 2; only 37% of current smokers received an evaluation. Many patients refused NRT, with 36% administered NRT prior to the BOC.

Table 1: Guideline adherence and monitoring parameters

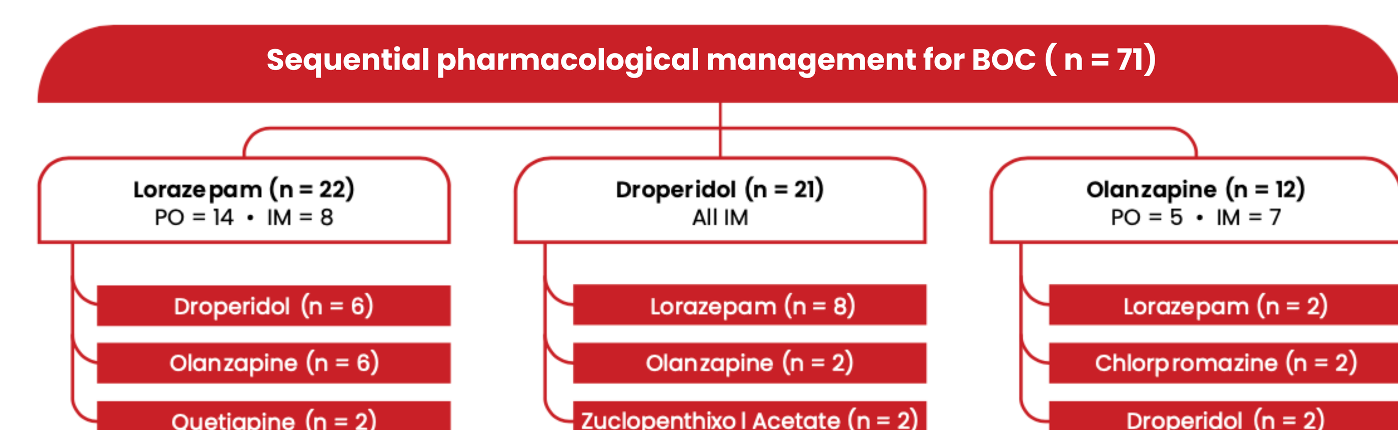
Guideline parameter, n (%)	1st drug administration (n = 71)	2nd drug administration (n = 41)
Medication selection as per guideline, yes	65 (92)	35 (85)
Visual monitoring adherent to guideline, yes	37 (52)	28 (68)
Respiratory rate monitoring adherent to guideline, yes	27 (38)	18 (44)
ECG monitoring recommended per guideline, n(%) ECG monitoring completed, yes, n(%)	46 (65) 5 (11)	23 (56) 3 (13)
Documented adverse event as a result of pharmacological intervention, yes	1 (1)	0 (0)

Table 2: Nicotine dependence assessment and NRT provision for current smokers

Nicotine dependence assessment and NRT provision, n (%)	n = 59
Smoking assessment for current smokers	
Total completed	22 (37)
- Completed prior to BOC	15 (25)
- Completed retrospectively (after BOC)	7 (12)
NRT for current smokers prior to BOC	
Charted	52 (88)
Administered	21 (36)

The three most common first medications used for BOC management, and subsequent medications used, are shown in Figure 3. Oral lorazepam was the most frequently used agent. This is adherent to Alfred Health's IPU Acute Sedation Guideline, as this is the first-line option.

Figure 3: Common medication combinations following BOC



Discussion

Aggressive BOC incidents in The Alfred's IPU were managed according to the guideline in most instances. Improvements could be made in monitoring and documentation. This is consistent with the literature review. [2,3,4] Possible ways to streamline monitoring and documentation include:

- Guideline simplification – consideration of a tiered/traffic light monitoring system,
- Standardising document templates and integrated care plans within the electronic medical record, and
- Training and education for staff to ensure consistent documentation practices.

NRT did not seem to be significant in contributing to BOC, however it is noted that not all current smokers had an assessment completed. Timely assessments would be beneficial. A significant proportion of this population (75%) had a history of substance misuse, however it is unknown if this is consistent across the broader IPU population. This history may have contributed to the BOCs; further research in this area could be beneficial. Improving ease of recording incidents may improve guideline adherence.

Limitations to the study include lack of Riskman data for aggressive episodes that were appropriately de-escalated without restraint, as such, the full scope of de-escalation strategies cannot be captured; and retrospective nature of data.

Conclusion

This study has described the management of aggressive BOC in The Alfred's IPU, identified aspects of guideline adherence that can be improved, and other changes that can be made to improve safety on the IPU.

There is potential for these findings to influence future practice, including changes to electronic medical record documentation procedures, and considerations for how guidelines can realistically be implemented in the IPU setting.

References:

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