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Utilization of a Drug Use Screening Assessment: A Quantitative Study to Reduce Benzodiazepines in Inpatient Detoxification

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Utilization of A Drug Use Screening Assessment: A Quantitative Study to Reduce Benzodiazepines in Inpatient Detoxification

DNP Project Defense
Malerie Bolinsky, DNP Candidate
Substance use disorder overview

Normal detoxification with benzodiazepines

Significance of the problem

Introduction
Project purpose, goals, and aims

**Purpose:** For providers and nurses to better understand the severity of their patient’s drug use habits and adequately assess for the presence of polysubstance use on admission to an inpatient facility.

**Goal:** Reduce use of benzodiazepines to improve the overall withdrawal experience.

**Aim:** Reduce unnecessary benzodiazepine use in patients undergoing medical detoxification from illicit substances, not including alcohol by the end of three months of the study.
Theoretical base

- Evidence Based Practice Improvement (EBPI) model
- Developed in 2010 and combines two existing paradigms: evidence-based practice and process improvement
In individuals experiencing drug detoxification, how does utilizing the Drug Abuse Screening Test to analyze drug use upon admission compared to no assessment affect use of benzodiazepines for detoxification symptoms within length of stay at an inpatient psychiatric hospital?
Literature search strategy

Records identified through database searching (n = 36)
Records identified through other sources (n = 0)
Records after duplicates removed (n = 36)
Records screened (n = 36)
Records excluded (n = 10)
Full-text articles assessed for eligibility (n = 26)
Full-text articles excluded, with reasons (n = 16)
- Lack of applicability
- Incorrect/inadequate patient population (geriatrics, adolescents, community settings)
Studies included for critical appraisal (n = 10)
Studies included in synthesis of literature (n = 6)
Current literature

Validity of screening tools for patients with substance use disorder

- Drug Abuse Screening Test
- Substance Use Risk Profile Scale
- Identification of substance use disorder

Medical detoxification treatments with benzodiazepines

- Symptom triggered scales
- Tapered benzodiazepines
Methods: Setting/Participants

- Substance use and dual diagnosis unit in a psychiatric hospital
- Patients aged 18 years and older
Methods:
Data collection

- Initial chart review three times weekly for four weeks
- Evaluated categories: number of patients present on the unit, substances present in a drug screen, if benzodiazepine treatment was being utilized and what type, age, gender, admitting doctor, and readmission within 30 days status
- Consent unnecessary because data was de-identified
- Education provided to nurses and providers regarding Drug Abuse Screening Test for one month
- Chart review completed again for four weeks
Methods: outcome measures

If an overall reduction in the number of benzodiazepines used for detoxification was seen
Methods: Data analysis

Data collected and stored in a Microsoft excel table with each line dictating a single patient

- For yes/no questions, 1 indicated yes and 0 indicated no

Chi-square test was completed to evaluate if there was a relationship between the two main variables: time before and after screening tool implementation

Stratification of data occurred to remove duplicates
Results: demographics

- 180 patients pre-screening and 134 patients post-screening
- Average age of the patient was 38
- 71.7% male and 28.3% female
- Average length of stay at time of assessment was 2.43 days
Results: Substances used

Positive Drug Screens

Substance Tested
- Pre-screening
- Post-screening
65 patients had a blood alcohol level greater than 0, 50 having a BAL greater than 0.05.

Average BAL > 0 was 0.051, average BAL for > 0.05 was 0.233.

40 patients negative on both UDS and BAL (12 did not have one completed).
Results: Benzodiazepine use

- As needed benzodiazepines showed a statistically significant chi-square value of 0.004 – 27.8% were prescribed as-needed benzodiazepines during time 1 and 10.6% were prescribed as-needed benzodiazepines during time 2
- Scheduled and tapered benzodiazepines did not show a statistically significant chi-square value for reduction of use
Confirmed the use of the drug abuse screening test was associated with a decrease in benzodiazepine use on a detoxification unit.

As needed benzodiazepines showed a statistically significant decrease of prescribing between time 1 and time 2, indicating that the drug abuse screening tool likely had some effect in the ordering of benzodiazepines.

Confirms that using a screening tool to address drug use can accurately assess drug use and assist in appropriate benzodiazepine use for patients.
• Appropriate use of benzodiazepines can lower sedation rates and reduce exposure to addictive substances

• Limitations include small sample size at only one facility, not thorough education for providers, and ultimate prescribing authority of the provider
I would like to thank Ballad Health and the clinical staff at Woodridge Psychiatric Hospital for their participation in the project.

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References