Assisting providers in the reduction of benzodiazepine utilization in Veterans with Posttraumatic Stress Disorder using an Academic Detailing framework

Veterans Health Administration
Pharmacy Benefits Management
Academic Detailing Service

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Outline

Introduction

Aims

Approach

Results

Questions
Potential risks often outweigh benefits

**Benefits**
- Rapid symptom relief

**Risks**
- Increased overdose risk
- Increased risk of side effects with chronic use
- Potential for tolerance, withdrawal, and SUD

**High risk populations**
- Chronic respiratory disease
- Co-administered opioids
- Dementia
- Elderly (≥65 years)
- SUD
- Post-traumatic Stress Disorder (PTSD)
• Ineffective for treatment and prevention
• Any potential benefits are outweighed by risks
• 30% of VA PTSD patients had a prescription for benzodiazepines in fiscal year (FY) 2012

Academic detailing in reducing BZD use

- Lack of evidence to support AD in reducing BDZ prescribing in Veterans with PTSD
- Behavioral change interventions informed by theory have a higher likelihood of being effective
- Theoretical Domains Framework (TDF), developed using an expert consensus to simplify and integrate the various behavior change theories and to make the theory more accessible to and usable by other disciplines, was adapted for use by the ADS

Aims

• Aim 1: To effectively and efficiently assess implementation problems in the field and inform AD resource development and training of detailers

• Aim 2: To evaluate AD’s impact on aligning providers’ prescribing behavior with clinical practice guidelines measured by the proportion of Veterans with PTSD receiving benzodiazepines
Aim 1: Informed detailing strategies

• Design: Randomized national survey distributed electronically based on a modified TDF

• Population: VA Providers who had prescribed benzodiazepines identified at 9 VHA facilities across 5 geographical districts in 2017

• The ADS survey included 24 items using a 7-point Likert scale (Strongly Agree, ..., Strongly Disagree)

• 5 knowledge-based multiple choice questions to determine if there was a correlation between how the providers scored themselves on the knowledge domain
Figure 1. Modified Theoretical Domains Framework
Results

• In the survey analysis, a total of 953 BZD prescribers were selected from 9 geographically diverse facilities across VHA.

• Response rate was 11.6% (n=111) of which 40.5% (n=45) were mental health providers, 39.6% (n=44) were primary care providers, and 19.8% (n=22) were categorized as Other.

<table>
<thead>
<tr>
<th>Table 1. Top 3 Domains by Provider-type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental Health Providers</td>
</tr>
<tr>
<td>Primary Care Providers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2. Domain versus knowledge-based question score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 point increase in “Role” domain score</td>
</tr>
<tr>
<td>1 point increase in the “Optimism” domain score</td>
</tr>
</tbody>
</table>
• Primary Care
  – Beliefs about capabilities
    • Lack of confidence about tapering benzos in high risk Veterans if the Veteran isn’t motivated to taper
  – Skills
    • Not trained to recognize when a benzo taper is warranted
  – Environmental context
    • Not enough time to calculate and recommend a benzo taper
  – Goals/action planning/intentions
    • No clear plan on how to taper benzos in high risk Veterans
    • No intention to discuss tapering a benzo with at least 1 patient in the next week

• Mental Health
  – Social influences
    • They believe that most people whose opinion they value would approve of them using benzos in Veterans with mental health disorders
Select strategies- primary care

- Data resources
  - High risk patient identification
  - Taper calculation
  - Mail merge for DTC

Please read: The below taper is newly generated each time from Week 1. This system is not intended for use in patients in mid-taper.

<table>
<thead>
<tr>
<th>Taper Month</th>
<th>Prescription Data</th>
<th>Prescription Sig(s)</th>
<th>Total % Decreased</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month: 1</td>
<td>Diazepam 2 mg #252 Days Supply: 28</td>
<td>Take 10.5 tabs (21 mg) by mouth daily for 2 weeks</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Take 8.5 tabs (17 mg) by mouth daily for 1 week</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Take 6.5 tabs (13 mg) by mouth daily for 1 week</td>
<td>32</td>
</tr>
<tr>
<td>Month: 2</td>
<td>Diazepam 2 mg #182 Days Supply: 28</td>
<td>Take 6.5 tabs (13 mg) by mouth daily for 4 weeks</td>
<td>48</td>
</tr>
</tbody>
</table>

Select an agent to taper with
Diazepam

Select your available strengths
2 mg - Formulary - TAB
Evidence based interventions

2-3 fold interventions that increase success by 2-3 fold

- **Brief Educational Intervention**
  - Medication review, consultation (risks/benefits), assessment of patient readiness, provision of a withdrawal schedule and education about benzodiazepine use

- **Direct to Consumer Patient Education**
  - Letters designed to promote cognitive dissonance (e.g. EMPOWER trial)
  - Increases success of discontinuation by three fold

- **Augmentation**
  - Psychotherapy and/or pharmacotherapy aimed at addressing underlying pathology
Example academic detailing strategies

- Coaching AD on motivational interviewing
  - Who do they define as "high risk"
  - Skills to make conversation with the patient more successful
  - Elicit-provide-elicit (EPE)/ Feel Felt Found (FFF)
    - Discuss data about harms/risks
    - Discuss data around successful taper strategies
    - Share other successes and strategies used by their colleagues

- Identify local champion(s)

- Resources developed to assist
  - Provider guide
  - Quick reference guide
  - Direct to consumer brochure
  - Patient education documents
  - Discussion guide
Benzodiazepine Risks
Are You Aware of the Possible Risks from Taking Benzodiazepines?

There are more effective and less harmful treatments available for sleep, nightmares, PTSD, pain and anxiety.

Possible Risks

- Feeling tired or drowsy
- Memory and thinking problems
- Depression, mood changes, irritability, anger
- PTSD symptoms may get worse
- COPD and sleep apnea may get worse
- Pneumonia
- Car accidents
- You can be arrested for Driving While Impaired
- Unsteady walking
- Increased risk of falls, broken bones, or concussion
- Overdose - especially when combined with alcohol, strong pain medications, opioids, street drugs
- Birth defects
- Baby may need emergency care because of withdrawal symptoms

How ready are you to make a CHANGE?

The deaths of Heath Ledger, Amy Winehouse, Michael Jackson, and Elvis Presley involved benzodiazepines.

Discussing Benzodiazepine Discontinuation

1. Assess patient’s willingness to discontinue or reduce the dose

<table>
<thead>
<tr>
<th>Action</th>
<th>Provider Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Express concern</td>
<td>“I would like to take a minute to discuss my concerns about (benzodiazepine name).”</td>
</tr>
<tr>
<td>Provide education on potential risks</td>
<td>“Because of your (age or other risk factors), I am now concerned that the use of (benzodiazepine name) may put you at increased risk for (relevant repercussion).”</td>
</tr>
<tr>
<td>Assess patient’s readiness to begin taper process</td>
<td>“What do you see as the possible benefits of stopping or reducing the dose? What concerns do you have about stopping? What can we do together to help address these concerns?”</td>
</tr>
<tr>
<td>If patient indicates no desire to change, provide information handout. “What would be a reason you might consider changing from (benzodiazepine name) to (name of recommended alternative)?”</td>
<td></td>
</tr>
<tr>
<td>Negotiate plan</td>
<td>“What changes are you willing to make to meet this goal?”</td>
</tr>
<tr>
<td>“Would you be willing to talk to one of my colleagues to learn about options to support your changes?”</td>
<td></td>
</tr>
</tbody>
</table>

2. Agree on timing and discuss the symptoms that can occur with benzodiazepine taper

| Inform patients | Withdrawal is only temporary and not all patients will have symptoms |
| Slowly tapering will decrease these symptoms |
| Report distressing symptoms and if necessary adjust the rate of taper |

3. Provide written instructions for a structured medication taper. Be prepared to slow the taper if the patient reports significant withdrawal symptoms.

| Benzodiazepine Dosage Equivalents and Taper Schedules |
|-----------------------------------------------|---------|------------------|
| Approx. Dosage Equivalents | Elimination Half-life (hours) |
| Chloridiazepoxide | 25 mg | >100 hr |
| Diazepam | 10 mg | >100 hr |
| Clonazepam | 1 mg | 20-50 hr |
| Lorazepam | 2 mg | 10-20 hr |
| Alprazolam | 1 mg | 12-15 hr |
| Temazepam | 15 mg | 10-20 hr |

| Example Taper: Lorazepam 4 mg bid (Convert to 40 mg diazepam daily) |
|------------------|---------|------------------|
| Milestones: Week 2: * dose by 25% |
| Week 3: 20 mg/day (25% of initial dose) |
| Week 4: 25 mg/day |
| Week 5: 30 mg/day |
| Week 6: Continue at 40 mg/day |

Shorter taper (e.g. 3 months): Reduce dose by 50% the first 4 weeks then maintain on that dose for 1–2 months then reduce dose by 50% every 2 weeks

Longer taper (e.g. 6 months): 10–25% every 4 weeks

Switching to a longer acting benzodiazepine may be considered if clinically appropriate. In geriatric patients, consider tapering the short acting agent until withdrawal symptoms are seen then switch to a longer acting agent; high dose alprazolam may not have complete cross tolerance, and a gradual switch diazepam or clonazepam before taper may be appropriate; other treatment modalities should be considered (e.g., antidepressants for anxiety) if clinically appropriate.

Aim 2: Program evaluation

- A retrospective, repeated measures cohort study evaluating academic detailing’s impact on BZD in PTSD patients from October 2015 to September 2016.

- VA providers were included if they prescribed BDZ for patients with a PTSD diagnosis from October 2015 to September 2016.

- Compared the rate of change in the proportions of Veterans with PTSD prescribed a BDZ between providers who received an AD outreach visit and providers who did not receive an AD outreach visit (difference-in-differences estimation).
## Results

### Table 2. Baseline demographic between providers who were exposed and not exposed to academic detailing.

<table>
<thead>
<tr>
<th>Variables</th>
<th>AD-exposed (N=274)</th>
<th>AD-unexposed (N=1,424)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years), mean (SD)</td>
<td>54.8 (9.3)</td>
<td>53.8 (10.1)</td>
<td>0.110</td>
</tr>
<tr>
<td>Male, n (%)</td>
<td>182 (66.4%)</td>
<td>905 (63.6%)</td>
<td>0.365</td>
</tr>
<tr>
<td>FTEE, mean (SD)</td>
<td>0.97 (0.15)</td>
<td>0.94 (0.19)</td>
<td>0.001</td>
</tr>
<tr>
<td>Prior months worked, mean (SD)</td>
<td>136.0 (103.4)</td>
<td>132.0 (104.6)</td>
<td>0.559</td>
</tr>
</tbody>
</table>
AD-exposed providers had a significantly greater rate of reduction in the proportion of PTSD Veterans with a BDZ from baseline compared to AD-unexposed providers adjusting for baseline characteristics (14% versus 7%, respectively; p=0.045).
Discussion

• We did not take into consideration quality of the academic detailing educational outreach, local policy, and barriers to implementation and adoption of academic detailing

• Further analysis will need to focus on elements that had the greatest impact on outcomes

• First empirical evidence to report on the positive association between academic detailing and a reduction in the proportion of patients with BZD and a PTSD diagnosis
Questions

Question everything
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Appendix

Proportion on BZD with PTSD diagnosis = \frac{\text{Number of Veterans on BZD with PTSD diagnosis}}{\text{Total number of prescription unique with PTSD}}

AD-exposed providers had a 1% greater reduced odds of having BDZ compared to AD-unexposed providers across 12 months (95% CI: 0.01%, 2.0%)
Table 1. Survey Examples: **Statements** and **Knowledge-based Questions**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Likert scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have experience tapering benzodiazepines.</td>
<td>1 = Strongly Disagree; 7 = Strongly Agree</td>
</tr>
<tr>
<td>When tapering benzodiazepines, I am usually optimistic for a successful outcome for my patient.</td>
<td>1 = Strongly Disagree; 7 = Strongly Agree</td>
</tr>
<tr>
<td>The idea of tapering benzodiazepines in some Veterans makes me feel worried, stressed, or afraid.</td>
<td>1 = Strongly Disagree; 7 = Strongly Agree</td>
</tr>
<tr>
<td>Which of the following medications would you consider first line for the treatment of PTSD?</td>
<td>a. Gabapentin b. Bupropion c. Buspirone d. Sertraline</td>
</tr>
<tr>
<td>Benzodiazepines are considered “relatively contraindicated” in which of the following disorders?</td>
<td>a. Panic Disorder b. Generalized anxiety disorder c. Post-traumatic stress disorder d. All of the above</td>
</tr>
</tbody>
</table>