Impact of implementing an academic detailing program on opioid-benzodiazepine co-prescribing trends

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Disclosure statement

The author has no relevant financial or nonfinancial relationships to disclose. During the development, analysis, and preparation of this presentation, the author was an employee of the U.S. Veterans Health Administration, Department of Veterans Affairs.

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What are some risk factors of using a benzodiazepine with an opioid?
Background & Objective

• VA PBM Academic Detailing Service, along with the Opioid Safety Initiative and the Psychotropic Drug Safety Initiative, targeted VA providers with patients on either opioids, benzodiazepines, or both

• Uncertain about academic detailing’s impact on reducing potentially harmful co-prescribing of opioids and benzodiazepines among Veterans

• A quality improvement project was undertaken to evaluate whether academic detailing enhanced the Opioid Safety Initiative and the Psychotropic Drug Safety Initiative to improve safe prescribing of opioids and benzodiazepines in the Veteran population
Methods

Primary Aim: We evaluated the differences in the average monthly prevalence of Veterans co-prescribed an opioid and benzodiazepine between stations that implemented and did not implement academic detailing

Secondary Aim: We evaluated the association between the station-level proportion of providers exposed to academic detailing and the change in the monthly average prevalence
Results (1)

### Baseline characteristics of VA stations (N=130) that implemented and did not implement academic detailing.

<table>
<thead>
<tr>
<th>Variable</th>
<th>All VA stations (N=130)</th>
<th>VA stations that implemented academic detailing (N=119)</th>
<th>VA stations that did not implement academic detailing (N=11)</th>
<th>P-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly number of unique outpatient visits, mean (SD)</td>
<td>22,837 (13,139)</td>
<td>23,386 (13,073)</td>
<td>16,899 (12,959)</td>
<td>0.139</td>
</tr>
<tr>
<td>Monthly number of unique inpatient visits, mean (SD)</td>
<td>439 (336)</td>
<td>545 (339)</td>
<td>283 (254)</td>
<td>0.058</td>
</tr>
<tr>
<td>Monthly number of unique emergency department / urgent care visits, mean (SD)</td>
<td>1,345 (872)</td>
<td>1,392 (881)</td>
<td>843 (574)</td>
<td>0.012</td>
</tr>
<tr>
<td>Monthly number of unique pharmacy patients, mean (SD)</td>
<td>14,531 (8,291)</td>
<td>14,910 (8,270)</td>
<td>10,430 (7,707)</td>
<td>0.091</td>
</tr>
<tr>
<td>Monthly number of unique academic detailers, mean (SD)</td>
<td>0.1 (0.4)</td>
<td>0.11 (0.45)</td>
<td>0.00 (0.00)</td>
<td>0.009</td>
</tr>
<tr>
<td>Division, n (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Atlantic</td>
<td>36 (27.7%)</td>
<td>32 (26.9%)</td>
<td>4 (36.4%)</td>
<td>0.184</td>
</tr>
<tr>
<td>Southeast</td>
<td>20 (15.4%)</td>
<td>20 (16.8%)</td>
<td>0 (0.0%)</td>
<td></td>
</tr>
<tr>
<td>Midwest</td>
<td>27 (20.8%)</td>
<td>23 (19.3%)</td>
<td>4 (36.4%)</td>
<td></td>
</tr>
<tr>
<td>Continental</td>
<td>23 (17.7%)</td>
<td>23 (19.3%)</td>
<td>0 (0.0%)</td>
<td></td>
</tr>
<tr>
<td>Pacific</td>
<td>24 (18.5%)</td>
<td>21 (17.7%)</td>
<td>3 (27.3%)</td>
<td></td>
</tr>
</tbody>
</table>

* P-value represents the comparison between stations that implemented academic detailing to stations that did not implement academic detailing.
SD, standard deviation
Average station-level proportion of providers who received academic detailing and station-level prevalence of Veterans receiving an opioid-benzodiazepine combination at the Veterans Health Administration, October 1, 2014 to March 31, 2019
VA stations that implemented opioid- or benzodiazepine-related academic detailing programs (AD exposed) had a greater reduction in the prevalence of opioid-benzodiazepine combinations compared to VA stations that did not implement these programs (AD unexposed) during the study period (P=0.036).
Academic detailing had an impact on:

- **reducing the prevalence of opioid-benzodiazepine co-prescribing** and, potentially:

- **reducing the risk of opioid overdose events**

Aligns with previous studies that have reported academic detailing’s impact on provider's benzodiazepine prescribing.
Ragan and colleagues reported that VA providers, after receiving an academic detailing outreach visit, had a greater reduction in the monthly prevalence of elderly patients receiving harmful benzodiazepine prescriptions compared to before the intervention (Ragan, et al (2019)).

A separate study reported that VA providers who received academic detailing had a greater reduction in the monthly prevalence of inappropriate benzodiazepine prescribing in patients diagnosed with PTSD compared to providers who did not receive academic detailing (Bounthavong, et al (2020)).
Limitations

• Did not perform provider- or patient-level analyses
• Providers may write for both benzodiazepine and opioids
• Other VA efforts were on-going during this time period
• Heterogeneity between stations
What additional data do you think we should collect?
Conclusions

• **Academic detailing has an important role** in reducing harmful opioid-benzodiazepine co-prescribing

• Increasing the proportion of providers receiving opioid- or benzodiazepine-related academic detailing outreach **reduces the prevalence of harmful opioid-benzodiazepine co-prescribing**

• Highlights the **importance of implementation reach** on academic detailing’s effectiveness at reducing harmful opioid-benzodiazepine co-prescribing

• Using proportion of providers who received campaign-specific academic detailing can be an **important metric for future implementation planning**


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• Michael Valentino

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