

Trends in Outpatient Benzodiazepine Prescribing, 2005-2010



Introduction

- Emergency department (ED) visits for benzodiazepine (BZD) overdose have approximately doubled between 2005-10.
- Alprazolam was the BZD most commonly implicated in overdose-related ED visits.
- The impact of outpatient BZD prescribing on overdose trends is less well described.
- *Research Question:* To characterize trends in BZD prescribing in outpatient offices and clinics, and BZDs prescribed at discharge from US EDs, focusing on specific agents.

Methods

- A retrospective review of data from the CDC's National Hospital Ambulatory Medical Care Survey (NHAMCS) for ED visits, and National Ambulatory Medical Care Survey (NAMCS) for ambulatory visits, 2005-2010 was performed.
- All adult (age ≥18 years) ED and outpatient office and clinic visits during which a BZD was prescribed were included.
- Trends in outpatient prescribing of individual BZDs were also evaluated.
- The proportion of visits during which a BZD was prescribed were tabulated and trends were analyzed using survey-weighted logistic regression.

Results

- There were an estimated 741 million ED visits between 2005 and 2010, of which 5.6 million (0.7%) visits included a BZD prescription at discharge.
- Between 2005 and 2010, there were an estimated 4.8 billion ambulatory care visits, of which 235.4 million (4%) visits included a BZD prescription.
- Overall ED BZD prescribing did not change over time (0.9% vs. 1.0% of visits, $p=0.112$); however, outpatient BZD prescribing increased 25.6% (4.3% to 5.4% of visits, $p=0.003$).
- The most commonly prescribed BZD from the ED was lorazepam, whereas alprazolam was the most common from outpatient offices and clinics.
- Alprazolam prescribing did not significantly increase during the study period from the ED or in the ambulatory setting.
- In EDs, the most common reason for visit (RFV) in which a BZD was prescribed were back pain (9.4%) in 2005 and chest pain (14.7%) in 2010.
- The most common RFV in which a BZD was prescribed in ambulatory settings in 2005 was anxiety and nervousness (8.5%), while in 2010 the most common RFV was progress visit not otherwise specified, (13.5%).

Trends in Individual Benzodiazepine Prescribing

Medication	2005 %, # Visits	2010 %, # Visits	Percent Change	p-Value
Alprazolam:				
Emergency Department	0.3% 257,928	0.2% 242,299	-33.3%	0.624
Ambulatory Care	1.9% 14,704,987	2.1% 17,152,681	10.5%	0.395
Clonazepam:				
Emergency Department	0.1% 69,775	0.1% 110,016	0.00%	0.038
Ambulatory Care	0.9% 6,686,201	1.3% 10,689,036	44.4%	0.001
Diazepam:				
Emergency Department	0.2% 206,949	0.3% 333,972	50.0%	0.048
Ambulatory Care	0.6% 4,690,359	0.7% 5,685,723	16.7%	0.237
Lorazepam:				
Emergency Department	0.3% 231,228	0.3% 275,232	0.00%	0.259
Ambulatory Care	1.1% 8,437,783	1.3% 10,864,236	18.2%	0.129

Discussion/Limitations

- Prescribing rates of BZDs did not increase to the same extent as BZD-related ED visits.
- Progress visits being the most common RFV during which BZDs are prescribed suggest patients may be on BZDs chronically in the outpatient setting.
- Other factors, such as increased misuse or diversion of prescribed medications as well as obtainment from other sources may contribute to rising BZD overdose rates.
- Our study was limited in that individual charts could not be evaluated to determine appropriateness of therapy, subsequent misuse, or adverse outcomes.

Conclusions

- BZD prescribing patterns alone do not explain rising rates of BZD overdose.
- Future efforts should focus on promoting the safe and rational prescribing of BZDs to prevent misuse, morbidity, and mortality.

Disclosures

- The authors have no conflicts of interest to disclose.

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