

Introduction

Vyvanse was selected because it is one of the primary pharmacological treatment options for ADHD patients. 300 tweets were selected and analyzed to assess the drug's most significant adverse effects, dating from 12/14/2015 to 12/25/2015. This data was then compared to peer-reviewed data from the FAERS database.

Twitter Data

Analysis of Tweets:

- 84/300 (28%) of tweets reported at least 1 adverse effect related to Vyvanse consumption.
- 11 of these tweets reported 2 or more adverse effects.

FAERS Data

Analysis of FAERS:

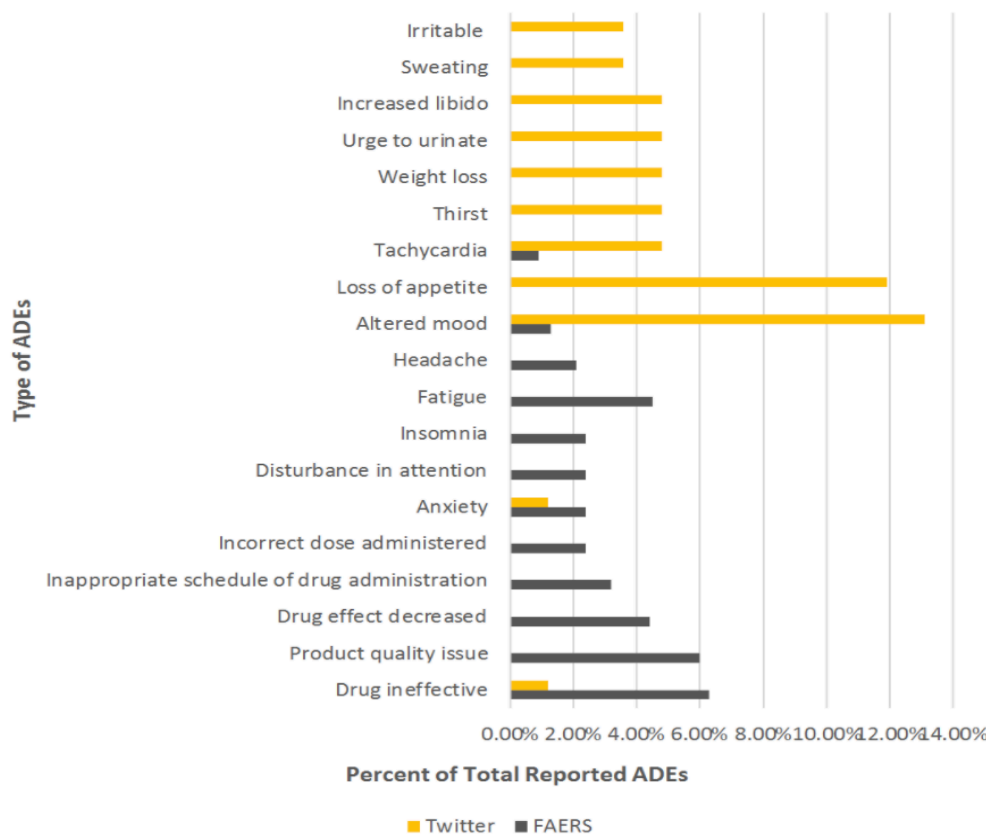
- Of the 7,101 entries on FAERS for Vyvanse, 446 reported drug ineffectiveness (6.3%)

Conclusions

- The primary adverse event reported on Twitter was insomnia.
- The primary adverse event on FAERS was drug ineffectiveness.
- This results may be due to the fact that Twitter is an informal self-reporting platform and non-anonymous, whereas FAERS is more likely to have more personal reactions due to it being anonymous.
- The difference in results can also be due to the smaller sample size used for the Twitter data collection.
- The FAERS data had a wider date range than the Twitter data.

Twitter Events vs FAERS Reported as a Percentage of Adverse Drug Events:

Comparison of the Top 10 ADEs Reported



Top 10 Twitter Reactions

Events	Number of Events
Insomnia	22
Altered Mood	11
Loss of appetite	10
Tachycardia	4
Thirst	4
Weight loss	4
Urge to urinate	4
Increased libido	4
Sweating	3
Irritable	3

Top 10 FAERS Reactions

Events	Number of Events
Drug ineffective	446
Product quality issue	428
Drug effect decreased	309
Inappropriate schedule of drug administration	229
Incorrect dose administered	173
Anxiety	168
Disturbance in attention	167
Insomnia	167
Fatigue	151
Headache	147