

Neurontin: Twitter versus FAERS Data

Claire Hornsby, Shelbie Huffmeyer, Taylor McBride, Ann Keimig

Introduction

Neurontin is a drug used for treating epilepsy and neuropathy. We compared SafeRx FAERS data and Twitter data on the adverse reactions for Neurontin. We were curious about the differences between reported adverse drug reactions on different platforms.

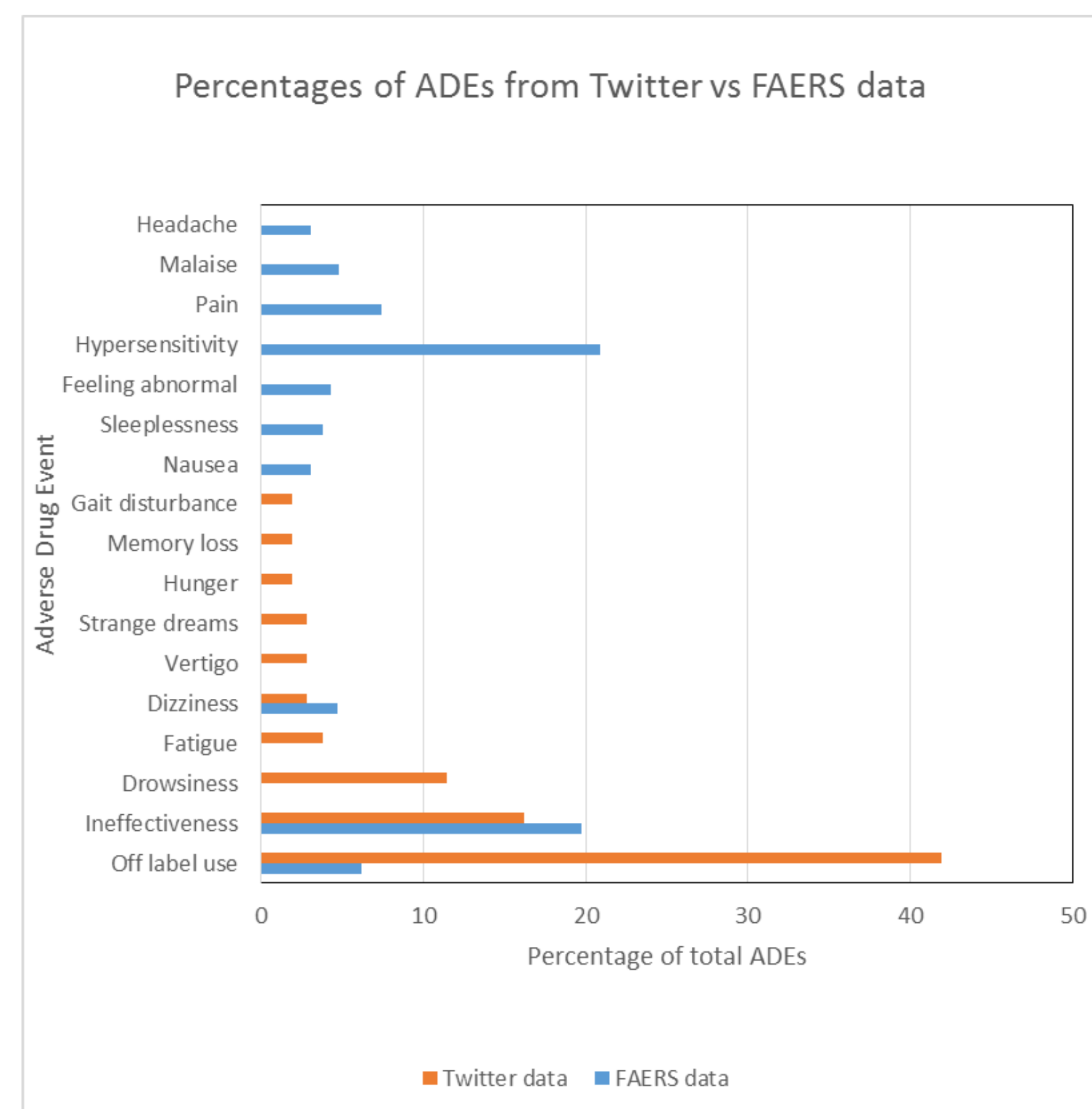
Top 15 Twitter Reactions

- Most recent 300 tweets from 3/23/2012 to 10/4/2016 including the word Neurontin were selected as a sample
- 105/300 tweets contained at least 1 ADE
- 22 ADEs were reported

Type	# of Times Reported
Off label use	44
Ineffectiveness	17
Drowsiness	12
Fatigue	4
Dizziness	3
Vertigo	3
Strange dreams	3
Hunger	2
Memory loss	2
Gait disturbance	2
Forgetfulness	2
Nausea	2
Sleeplessness	2
Mental change	2

Twitter Events versus FAERS Reported as a Percentage of Adverse Drug Events

Below is a chart comparing Twitter and FAERS data for adverse drug events in Neurontin use. The data shows a percentage of the top 15 ADEs out of all the reported ADEs from the data collection platforms (Twitter and FAERS)



FAERS Data

- The total number of ADEs reported to FAERS attributed to Neurontin was 6964

Type	# of Times Reported
Drug hypersensitivity	1453
Drug ineffective	1372
Pain	512
Off label use	435
Drug ineffective for unapproved indication	355
Malaise	336
Dizziness	324
Feeling abnormal	300
Somnolence	265
Pain in extremity	234
Headache	219
Nausea	217
Fatigue	211
Fall	198
Depression	190

Conclusion

The twitter data is not very consistent with the FAERS data. Only five adverse drug events were similar between the top 15 Twitter and top 15 FAERS ADEs. This could be a result of the social pressure to publicize prescription abuse to portray a “cool sense of self” on social media. Abuse of Neurontin is also related to abuse of other narcotics. Recently, the government has been working on controlling the use of Neurontin due to this off-label use. It will be interesting to see the results of this drug control.