

Zoloft: Twitter versus FAERS Data

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FAERS Data

Analysis of Faers:

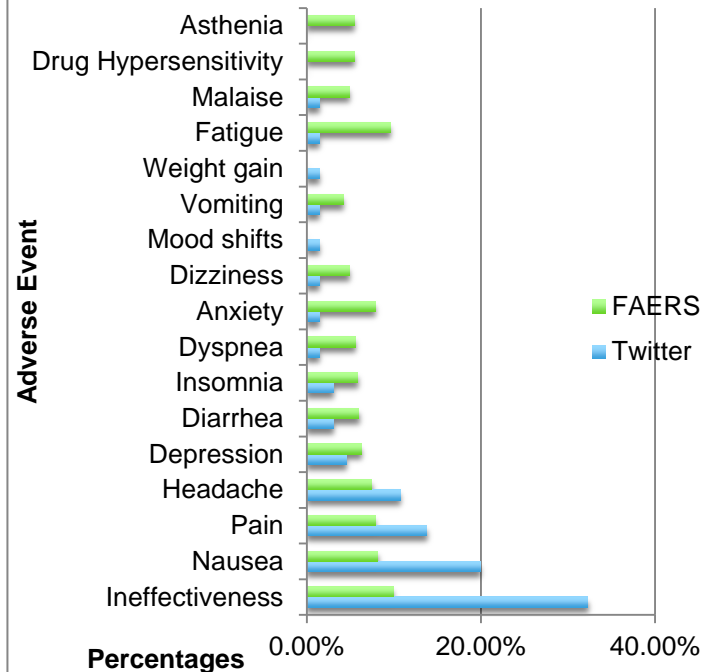
- The total number of the top 15 adverse effects according to FAERS data is 14,752
- Ineffectiveness: 10.0%
- Fatigue: 9.6%
- Nausea: 8.2%
- Pain: 7.9%
- Anxiety: 7.5%

Top 15 FAERS Reactions

Event	Number of Events
Drug Ineffective	1482
Fatigue	1422
Nausea	1209
Pain	1172
Anxiety	1165
Headache	1112
Depression	935
Diarrhea	881
Insomnia	864
Dyspnea	832
Drug Hypersensitivity	815
Asthenia	810
Dizziness	719
Malaise	717
Vomiting	617

Zoloft was selected because it is a highly reported drug to the FDA Adverse Event Reporting System (FAERS). 300 tweets were randomly collected as a sample on 10/8/2016 with tweets with dates ranging from 12/7/15-10/8/16.

Adverse Effects of Zoloft expressed on Twitter versus on FAERS data



Conclusion:

- The number one adverse effect for Zoloft, drug ineffectiveness, is consistent with FAERS data and Twitter data.
- Due to our research, the Twitter data we obtained did not capture the same 15 top adverse effects as the FAERS data did, although many of them did correlate with each other and many were the same. This might be due to false data from Twitter and a smaller sample size than FAERS data.
- It would be interesting to see if a different drug will be more popular than Zoloft for treating depression due to the top adverse effect being drug ineffectiveness.

Twitter Data

Analysis of Tweets:

- 212/300 tweets stated at least 1 adverse effect (70.7%)
- 37 adverse events were reported
- 35 tweets expressed 2 adverse

Top 15 Twitter Reactions

Event	Number of Events
Drug Ineffective	21
Nausea	13
Pain	9
Headache	7
Depression	3
Diarrhea	2
Insomnia	2
Dyspnea	1
Anxiety	1
Dizziness	1
Mood Shifts	1
Vomiting	1
Weight Gain	1
Fatigue	1
Malaise	1