

Prozac: Twitter versus FAERS Data

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Introduction

Prozac was chosen because it is one of many commonly prescribed antidepressants. 300 tweets were randomly collected between 10/18/2016 and 10/25/2016 including tweets posted between 10/17/2016 and 10/25/2016.

Twitter Analysis

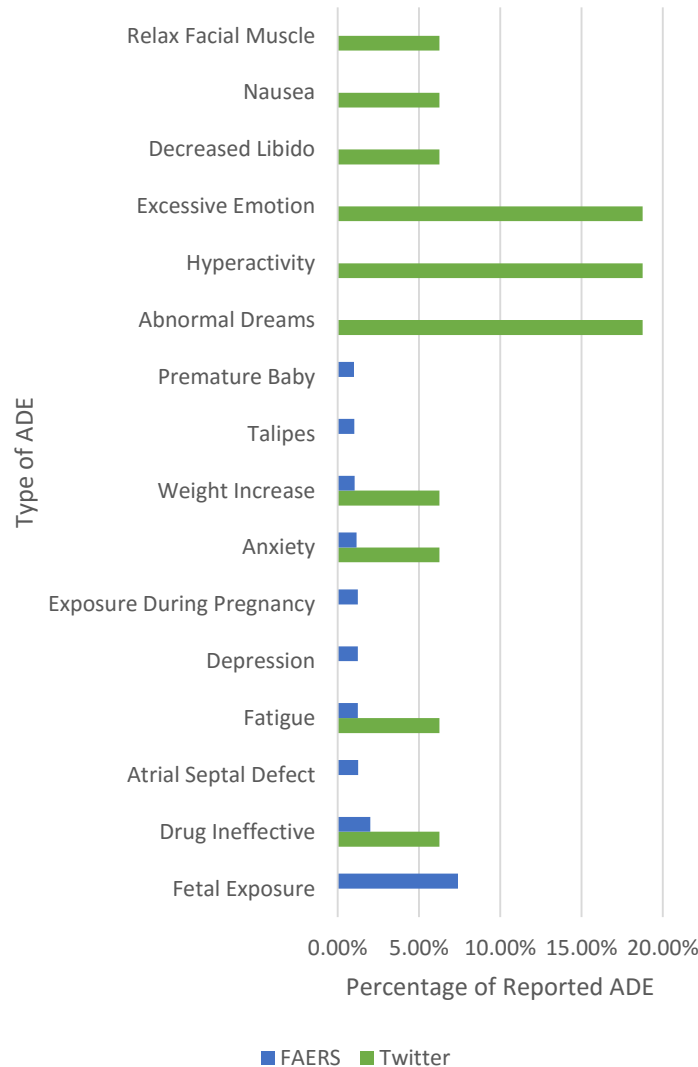
Of the 300 tweets analyzed, 16/300 tweets collected mentioned at least 1 adverse effect (5.33%) No tweets included more than one adverse effect.

Top 10 Twitter Events

Event	Number of Events
Abnormal Dreams	3
Excessive Emotion	3
Hyperactivity	3
Anxiety	1
Decreased Libido	1
Fatigue	1
Nausea	1
Ineffective	1
Relaxed Facial Muscle	1
Weight Gain	1

Comparison of Twitter and FAERS Data

Comparison of Top 10 ADEs Reported



FAERS Analysis

Total Number of Reported Adverse Drug Effects

- 20,486

Top 10 Adverse Drug Effects

- Fetal exposure (7.40%)
- Drug ineffective (2.01%)
- Atrial septal defect (1.25%)
- Fatigue (1.23%)
- Depression (1.23%)
- Exposure during pregnancy (1.23%)
- Anxiety (1.16%)
- Weight increase (1.03%)
- Talipes (1.02%)
- Premature baby (0.99%)

Conclusion

When comparing the top ten adverse drug effects (ADEs) for the Twitter and FAERS data, a few of the ADEs reported on Twitter overlapped with those of the FAERS data, but there were many differences. Many of the ADEs reported on Twitter were different than the ADEs reported on FAERS. However, it is important to note that the top 10 ADEs found in the Twitter data, were the only ADEs found in the 300 tweet sample. This being said, there were many more ADEs represented in the FAERS data. Therefore, for a more representative comparison, a larger tweet sample should be collected.