

# Albuterol

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## Introduction

Albuterol was chosen for its effectiveness in asthmatic patients; however, according to the FDA Adverse Event Reporting System (FAERS), there are many adverse effects reported with the use of this drug. 159 tweets were collected as a sample with dates ranging from 09/23/16 to 10/16/16 to compare the Twitter data with FAERS.

## Twitter Data

### Analysis of Tweets

- 44 tweets/159 tweets stated an adverse effect of albuterol. That is 27.7%.

### 8 different adverse events were reported

- There were no tweets expressing 2 or more adverse effects.

### Tweet Timing

- Most of the tweets were found to take place in the early morning or late at night. This may be because that is when the drug was normally administered.

## FAERS Data

### Dyspnea

- Shortness of breath is the greatest reported adverse effect of albuterol according to FAERS.

### Top 15 Adverse Events

- Of the 15 adverse effects reported from FAERS, there were 6,251 reports of these incidences total.

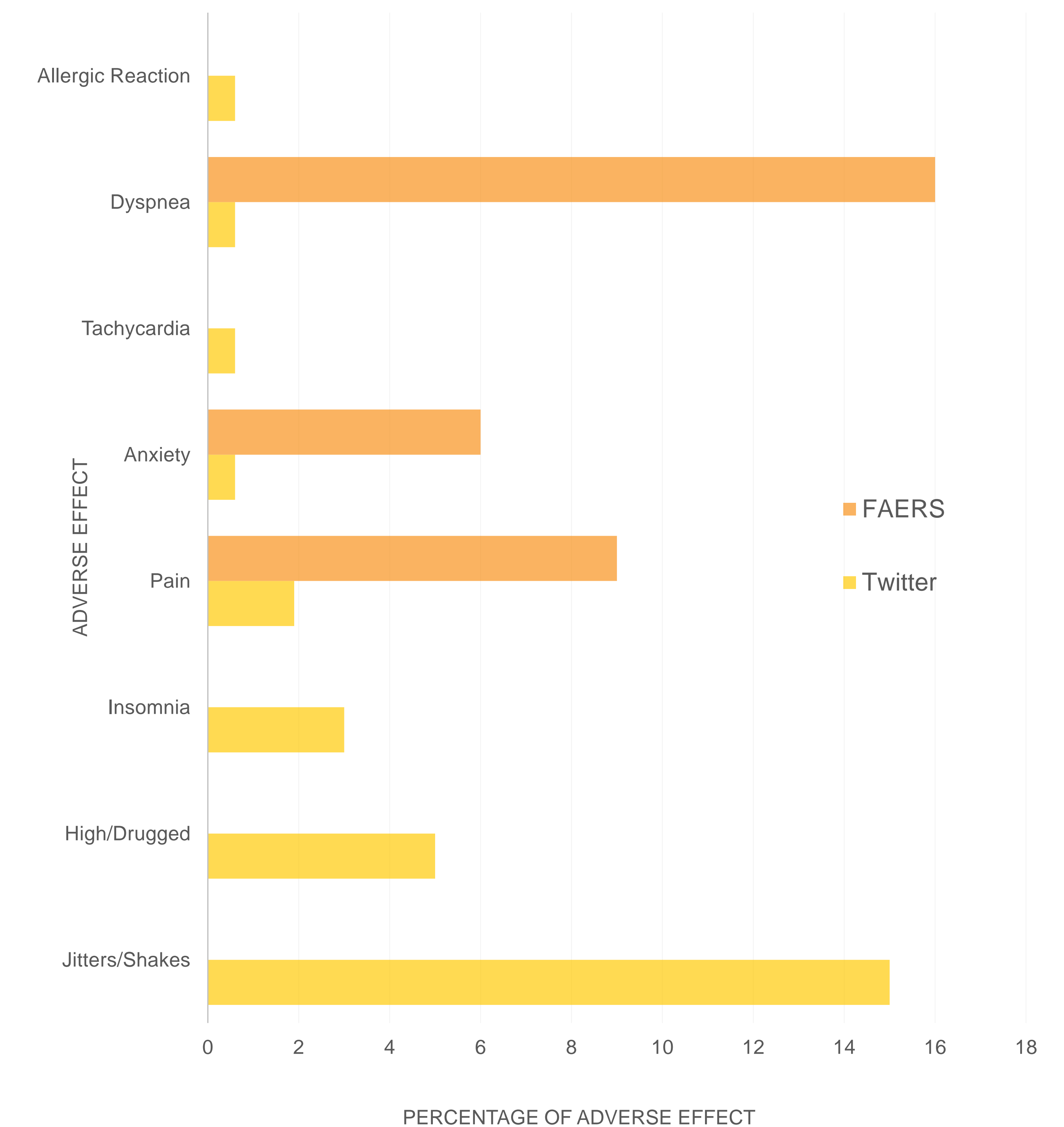
## Top 8 Twitter Reactions

Adverse Effect	Number of Events out of 159 Tweets
Shaking	24
Drugged/High	8
Insomnia	5
Pain	3
Anxiety	1
Tachycardia	1
Dyspnea	1
Allergic Reaction	1

## Top 15 FAERS Reactions

Adverse Effect	Number of Events out of 6,251
Dyspnea	1005
Pain	561
Drug Ineffective	442
Pneumonia	436
Headache	419
Cough	411
Nausea	375
Anxiety	373
Pulmonary Embolism	364
Asthma	344
Fatigue	343
COPD	321
Dizziness	295
Product Quality Issue	290
Injury	272

## FAERS vs. Twitter



## Conclusion

- The Twitter data was not consistent with FAERS data in showing adverse drug events while using albuterol.
- Although Twitter is a less reliable source than FAERS, albuterol has been known to commonly cause shakes and jitters. This was a surprising finding.
- Our record of tweets was over a three week time span. Having a record of tweets from a longer time period may have revealed a wider variety of adverse effects.