Rifampin: Twitter versus FAERS Data

Alexis Hash, Jessie Lee, Carlie Schneider, Morgan Dinsmore, Ania Niezgoda
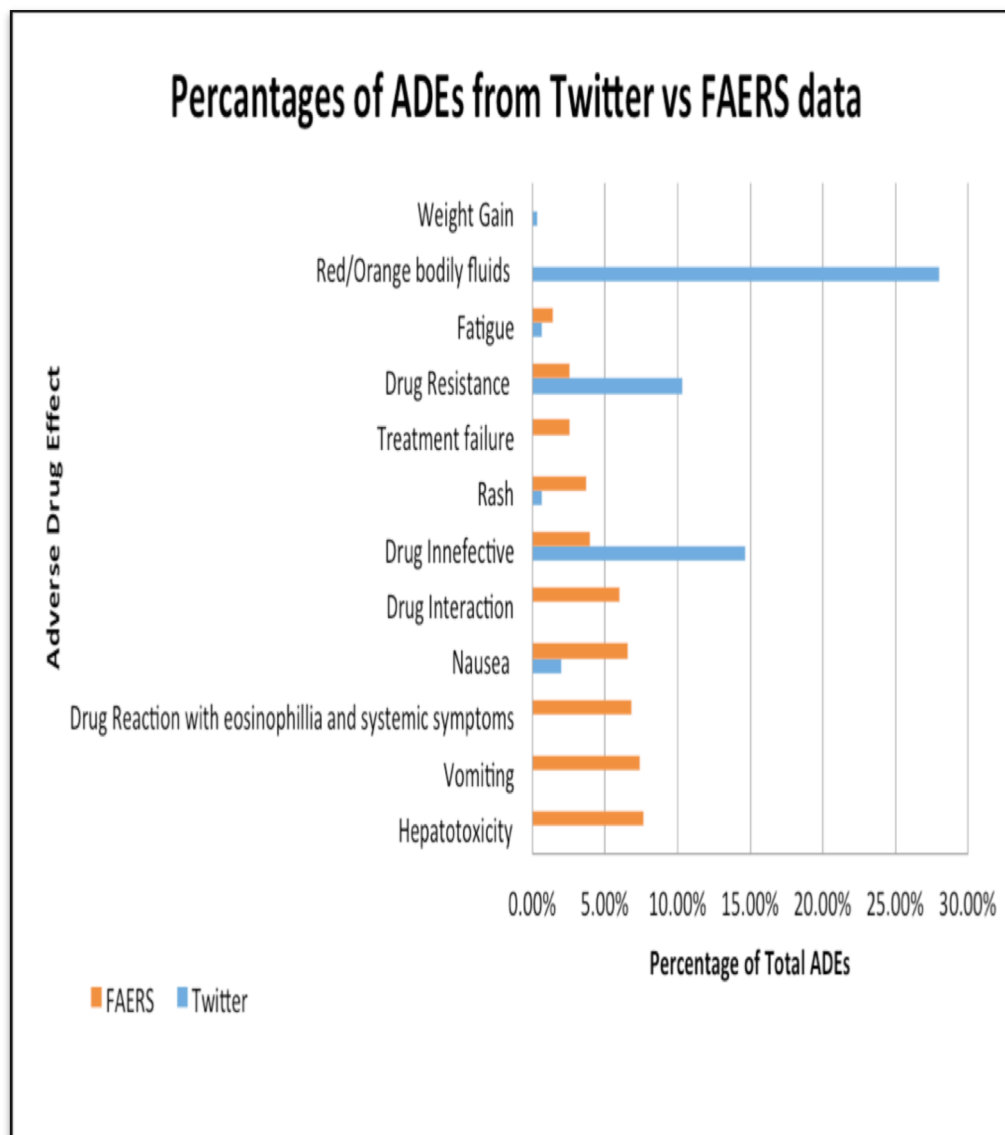
Introduction:

Rifampin is an antibiotic that is mainly used to treat or prevent Tuberculosis. For this project, we used Twitter data and SafeRx FAERS data to compare the most common reported adverse effects of this drug.

Top 7 Twitter Reactions:

300 tweets were used from 1/7/2010 to 3/7/2017, and only 170 tweets out of the 300 mentioned ADEs.

Type of Reaction	# Reported
Red/orange bodily fluids	84
Drug ineffective	44
Drug resistance	31
Nausea	6
Fatigue	2
Rash	2
Weight gain	1

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

Top 10 FAERS Reactions:

The total number of ADEs reported was 352.

Type of Reaction	# Reported
Hepatotoxicity	27
Vomiting	26
Drug reaction with eosinophilia and systemic symptoms	24
Nausea	23
Drug interaction	21
Drug ineffective	14
Rash	13
Treatment failure	9
Drug resistance	9
Fatigue	5

Conclusion:

Only seven adverse effects were used for the Twitter data because not many people were tweeting about the drug Rifampin. Overall, the Twitter data is not very consistent with the FAERS data. According to the Twitter data, the main adverse effect was red/orange bodily fluids, but in the FAERS data, this adverse event was not even reported. Out of the seven adverse effects from the Twitter data, five were similar with the FAERS top ten adverse events.