

Nexplanon (Radiopaque) Etonogestrel implant

Introduction

Nexplanon is a subdermal Progestin implant that is inserted into the inner side of the upper, non-dominant arm. Nexplanon is used therapeutically as a form of female contraception which is defined as the prevention of pregnancy. Our group was interested in researching this drug because the average cost for one device is \$925.82, and it may or may not be covered by insurance.

Twitter Methods

Analysis of Tweets:

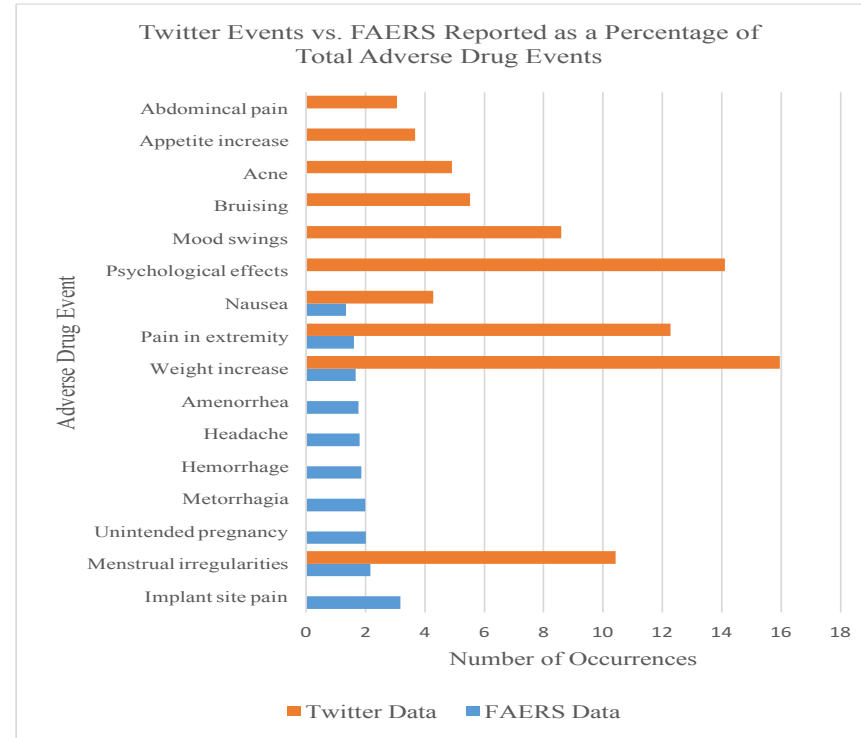
- Of the 300 tweets, 163 tweets stated at least 1 adverse event (54%)
- 10 adverse events were reported
- Most recent tweets from 3/21/2014 to 8/3/2017 including the word "Nexplanon" was the selected sample
- 19 tweets report 2 or more adverse effects

Top 10 Twitter ADEs (table)

Adverse Reactions	Number of occurrences
Weight increase	26
Psychological effects	23
Pain in extremity	20
Period irregularities	17
Mood swings	14
Bruising	9
Acne	8
Nausea	7
Appetite Increase	6
Abdominal pain	5

Berrios, S., Cruse, M., Hetsimer, C., Huffman, M., Krcelich, K., Schneider, A.

Reporting Comparison Table



Conclusion

- There were many differences between adverse effects reported on Twitter versus what FAERS data reported. Only four of the top ten adverse reactions overlapped between the data.
- The top adverse effect on Twitter was weight increase, while no adverse effect topped FAERS data.
- Of the Top 20 adverse effects on FAERS, seven of the most common were related to the device (difficulty of use, expulsion, kink, breakage), which we did not see on Twitter. This could be a result of mostly physicians reporting device related adverse reactions while patients on Twitter talked about more symptomatic reactions, leading to less report overlap.
- Most tweets were related to adverse effects, anxiety towards implantation/ removal, asking opinions, and broad negative or positive reviews.

FAERS Methods

Analysis of FAERS:

- Of 15,060 entries on FAERS for Nexplanon, there were 25,908 reactions.
- Of the entries FAERS received, implant site pain comprised 3.17%.
- 3.17% represents all types of implant site pain reactions reported in FAERS.

Top 10 FAERS ADEs (table)

Adverse Reactions	Number of occurrences
Implant site pain	820
Menstruation irregular	562
Unintended pregnancy	524
Metorrhagia	515
Hemorrhage	479
Headache	466
Amenorrhea	455
Weight Increase	429
Pain in extremity	418
Nausea	346