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INTRODUCTION

- 16% of women in the US ages 15-44 y.o. rely on oral contraception for relief from dysmenorrhea, acne, PMS, hypermenorrhea, anemia and other medical complications related to menstruation (CDC, 2017, p.1).
- Finding a safe and effective oral contraceptive can be a challenge due to the tendency to elicit harsh and potentially fatal adverse reactions.
- We compared Twitter and FAERS data to determine the safety of Yaz as an oral contraceptive for women who are dependent on these pharmaceuticals for their medical conditions.

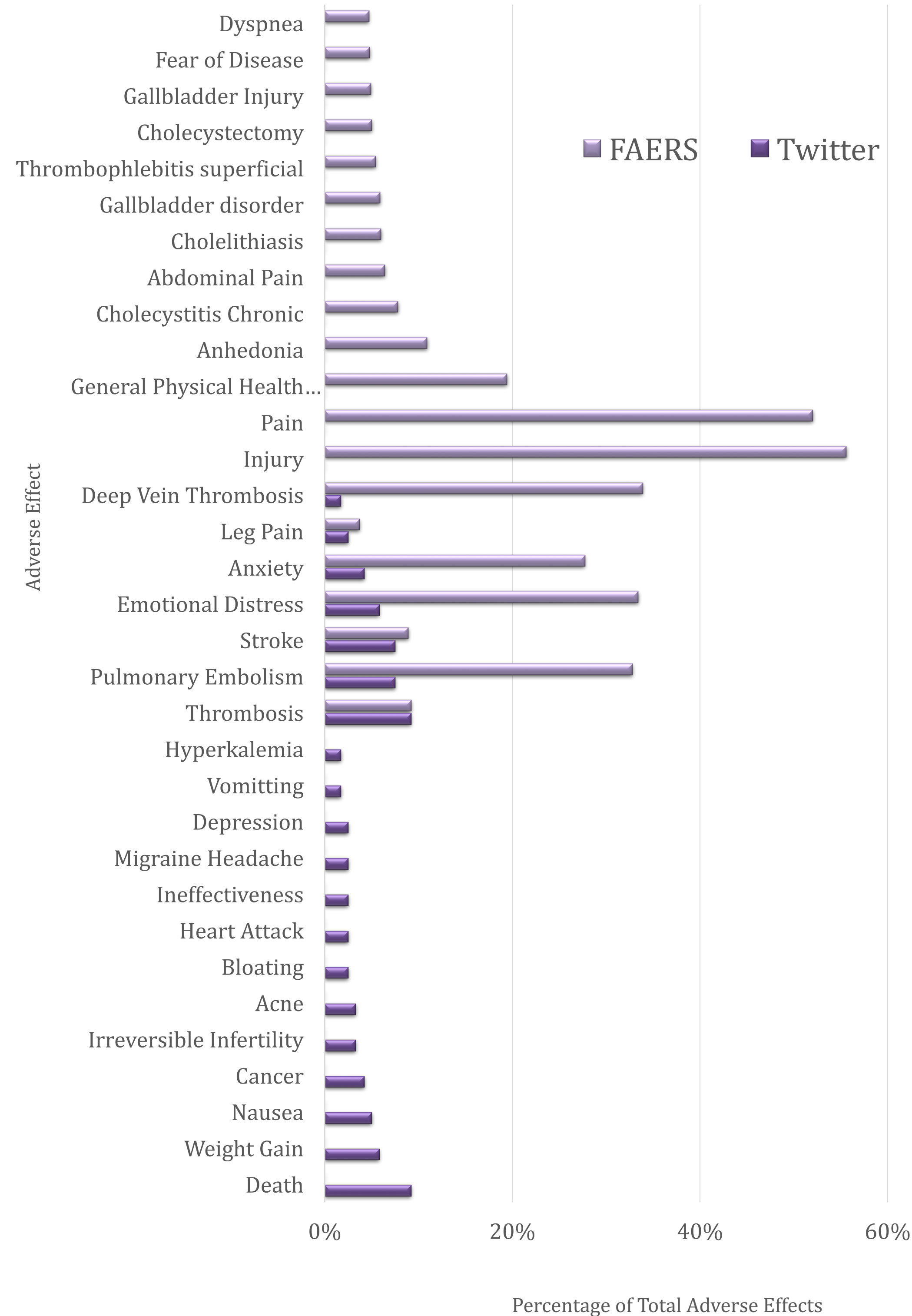
TWITTER DATA

- 110 of 300 tweets about Yaz reported the experience of at least one adverse effect related to the drug (40%).
- 10 of the 110 tweets reported the experience of two adverse effects.
- This makes for a total of 120 adverse effects reported within the analysis of 300 tweets.

TOP 20 TWITTER REACTIONS

Adverse Effect	Number of Events
Death	11
Thrombosis	11
Pulmonary Embolism	9
Stroke	9
Emotional Distress	7
Weight Gain	7
Nausea	6
Cancer	5
Anxiety	5
Irreversible Infertility	4
Acne	4
Bloating	3
Heart Attack	3
Ineffectiveness	3
Leg Pain	3
Migraine Headache	3
Depression	3
Vomiting	2
Deep Vein Thrombosis	2
Hyperkalemia	2

TOP 20 FAERS VS. TWITTER



CONCLUSION

- The ADEs reported on Twitter and the FAERS database were similar in content, but not in proportion.
- This could be because of the different sample sizes between the two groups: Twitter (n=300) vs. FAERS (n=10,553).
- This could also be due to the language used in reporting the ADEs. The FAERS database had more reports from physicians, lawyers and healthcare professionals and used more general and medical terminology, where reports on Twitter came directly from consumers, and used more informal terminology.

FAERS DATA

- Between the years of 2012 and 2017, 10,533 total adverse effects were reported by consumers, health professionals and lawyers.
- The FAERS system recognized 7 different search terms including the drug's brand, generic and chemical names.

TOP 20 FAERS REACTIONS

Adverse Effect	Number of Events
Injury	5872
Pain	5490
Deep vein thrombosis	3576
Emotional distress	3522
Pulmonary embolism	3462
Anxiety	2924
General physical health deterioration	2052
Anhedonia	1150
Thrombosis	968
Stroke	943
Cholecystitis chronic	824
Abdominal pain	672
Cholelithiasis	635
Gallbladder disorder	618
Thrombophlebitis superficial	570
Cholecystectomy	529
Gallbladder injury	519
Fear of disease	509
Dyspnea	497
Leg Pain	388