Gap Analysis of Drug Information on websites available to American Consumers

Vani Kumaran, PharmD[1], Edmund Arthur, PharmD[1], Richa Shah[3], Lindsay Brust-Sisti, PharmD,BCPS[2]

[1]Rutgers Institute for Pharmaceutical Industry Fellowships; [2]Ernest Mario School of Pharmacy, Rutgers University, Piscataway, NJ, USA; [3]Philadelphia College of Pharmacy, University of the Sciences, Pennsylvania

Background

➢ Since the late 1990s, the trend of consumer-driven access to health information has been cited in several publications
➢ More than 70,000 websites disseminate health information; in excess of 50 million people seek health information online [1]
➢ Recent publications discuss content analysis of health authoritative sites in comparison to drug review sites but with a limited number of drugs to compare information [2]
➢ There is a need to understand what information consumers are obtaining when the internet is the most accessible source for drug information to identify potential gaps and/or accuracy of this information

Objective

Provide a preliminary comparison of content available on different drug information websites as it relates to the approved package insert and to identify gaps across these resources

Methods

➢ Four drug information websites were identified from a web search in the Google search engine
  ➢ (Wikipedia, WebMD, Medline and Drugs.com)
➢ Drug information on these websites was compared against the information presented in the FDA approved package insert of a sample of 25 drugs
➢ Drugs selected for the data collection process were derived from an IMS Health national prescription audit report conducted between April 2013 and March 2014. The audit organized the top 100 medications by total prescriptions in the United States
➢ Content analysis was performed by comparing and documenting whether information presented by category in the package insert was also present on each of these respective websites for each drug in the sample selected

Results

➢ When comparing data from the 4 websites, the results show 100% of the sample content was available on Drugs.com in all criteria and on WebMD and Medline in 12 of 15 criteria
➢ This indicated that they were the most comprehensive and consistent with the package insert
➢ Drug information was available on all 4 websites for the selected sample of 25 drugs with the exception of Suboxone missing in WebMD's database

Results (continued)

Figure 1

Wikipedia
- Proportion of Criteria with <50% Sample Content
- Proportion of Criteria with 100% Sample Content
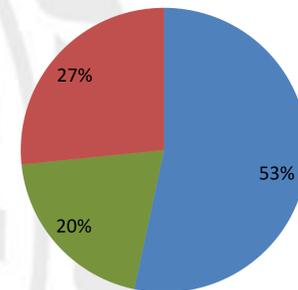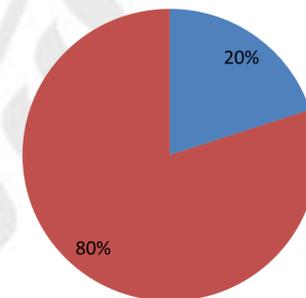- Proportion of Criteria with 50-99% Sample Content

53%
27%
20%

Figure 2

WEBMD
- Proportion of Criteria with <50% Sample Content
- Proportion of Criteria with 100% Sample Content

20%
80%

Figure 3

Medline
- Proportion of Criteria with <50% Sample Content
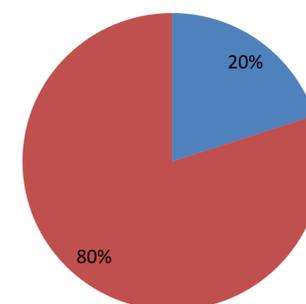- Proportion of Criteria with 100% Sample Content

20%
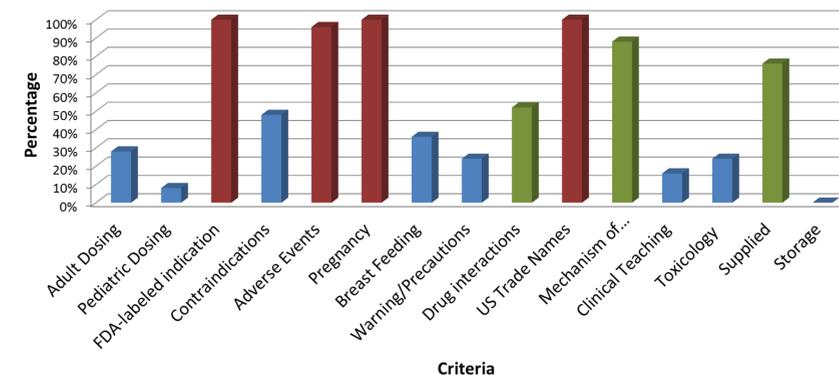80%

Figure 4

Wikipedia
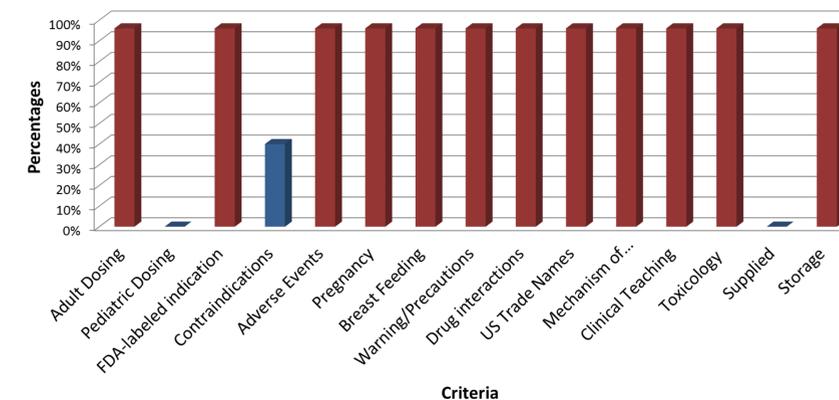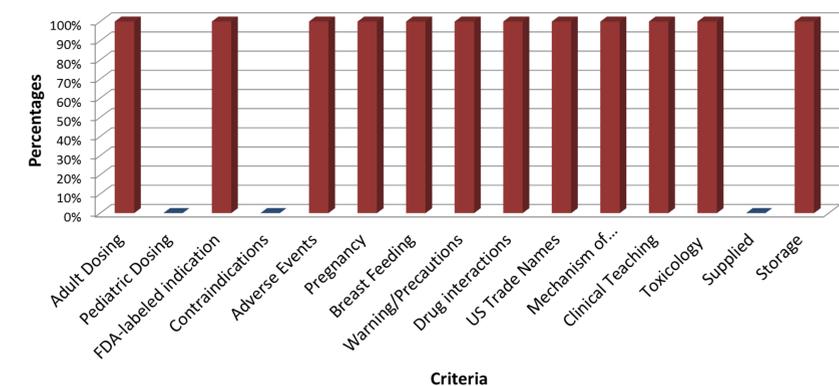
Figure 5

WebMD

Figure 6

Medline

Results (continued)

➢ Wikipedia (3 of 15 criteria) was the least comprehensive and consistent with the package insert as seen in **Figure 1**
➢ Significant gaps defined as criteria where only <50% of the sample information could be obtained from websites like WebMD (3 of 15) and Medline (3 of 15) can be seen in **Figure 2 and Figure 3**
➢ The gap analysis demonstrated that trends in missing criteria across these three sites included "Contraindications", "Pediatric Dosing" and "How Supplied" **(Figures 4-6)**
➢ A final criteria, non-FDA labeled indication was not found on any website except Wikipedia with 4% information on a select number of drugs

Limitations

➢ Representative sample of drugs may not accurately reflect all information available on the websites
➢ Some drug information content may have been overlooked or misinterpreted

Conclusions

➢ This study was used to identify the degree of detail of drug information available on websites which patients have access to view and obtain information
➢ In using the package insert as a benchmark, the methods used allow preliminary data on four frequently visited sites that appear when one searches for a drug
➢ The representative sample provided insight on what type of information a consumer sees when they want to understand more about a potential new prescription or existing medication they may be taking.
➢ The results demonstrate that WebMD, Medline, and Drugs.com are the "most comprehensive" of the four that were evaluated.
➢ Future implications may be to apply standardization practices for drug information available publically on the internet

References

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Author Contact Information

Vani Kumaran, PharmD - vani.kumaran@pfizer.com
Edmund Arthur, PharmD – edmund.arthur@pfizer.com
Richa Shah – rshah1528@mail.usciences.edu
Lindsay Brust-Sisti - lbrust@pharmacy.rutgers.edu

Disclosure