Testing the Search Engines

predictive power for identifying real side effects

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Sources of Data

30 years of EU data from Eudra-vigilance; 30 years of US data from VAERS. I created search engines that analyze this data and calculate the relative incidence of any symptom for any drug or vaccine. In this document I use the search engines to identify potential side effects of various drugs and vaccines. My aim is to test the accuracy and reliability of these search engines by seeing if the side effects that it identifies are confirmed by clinical data.

If the search engines reveal strong associations, then we can look at clinical and experimental data to see if these associations hold up. Therefore, this is a test of the search engine accuracy.

MAG = % of reports with a symptom for the chosen drug compared to the % of reports with that symptom for all other drugs in the dataset (1500 drugs). A magnitude of 2 means it has twice the incidence compared to the drugs; an incidence of 3 means three times the incidence etc. A magnitude of 2 or greater is a safety signal and warrants caution, and further investigation.

Examples of Accuracy

DRUG	SEARCH ENGINE PREDICTION	MAG	CLINICAL CONFIRMATION
Antibiotic			
Ciprofloxacin Levofloxacin	**Tendon Injury** Search Engine Results	200	Clinical Data Video 1, Video 2, Video 3, Video 4
Anti-Retro-Viral Drugs			
Atripla Truvada	**Bone destruction** Search Engine Results	654	Clinical Data
Tamiflu	**Psychosis** Search Engine Results	192	Clinical Data
Remdesivir	**Acute Kidney Injury** Search Engine Results	18	Clinical Data
Remdesivir	**Liver Injury** Search Engine Results	35	Clinical Data
Covid Vaccines			
Comirnaty	**Abnormal Menstrual Clots** Search Engine Results	10	Clinical Data
Anti-Diabetes			
Jardiance	**Acidosis** Search Engine Results	20	Clinical Data
Invokana	**Amputation** Search Engine Results	252	Clinical Data
Insulin	**Amyloidosis** Search Engine Results	17	Clinical Data
Sex Hormones			
Testosterone	**Acne** Search Engine Results	11	Clinical Data

HPV Vaccines			
Gardasil	**Encephomyelitis** Search Engine Results	16	Clinical Data
Anti-Cancer			
Tasigna	**Atherosclerosis** Search Engine Results	100	Clinical Data
Stopping blood cell aggregation			
Ticagrelor	**Suffocation / asphyxia** Search Engine Results	76	Clinical Data

These examples support the usefulness of the search engines, because the identified side effects are confirmed by clinical data. Therefore, the search engines provide a valuable first check of possible adverse effects. Not all adverse effects are life-threatening, and I have included some mild effects in the list above.

Unlike other online tools, these search engines provide **a quantitative measure** of the incidence of a symptom for that drug compared to other drugs. This is far more useful than the binary simplicity of just asserting that an effect is rare or common. A quantitative measure facilitates informed consent, where as a binary designation hides differences.

The search engines are public and online, and could be used by nurses, doctors, medical researchers, and by members of the public who wish to do their own research before accepting a medication or vaccination.

In this small sample, so far, it is evident that many drugs have alarming side effects. To claim that an experimental drug is totally safe and totally effective is more like propaganda than science.