Evidex. Advera Health Analytics, 427 Mendocino Avenue, Suite 150 Santa Rosa, CA, 05401; https://www.adverahealth.com; contact vendor for pricing.

OVERVIEW
The health care informatics company Advera Health Analytics launched Evidex in 2016. The database provides information on drug safety and adverse events. According to Advera Health Analytics, “With evidence of a drug’s safety and efficacy constantly evolving, our clients need to gather data quickly, conduct comprehensive analysis and make standardized comparisons to inform recommendations and decisions. Evidex was designed from the ground up to fill this important data and analytics gap” [1].

Users can search this resource for individual drugs or compare their differences in costs, outcomes, safety, efficacy, and more. The Food and Drug Administration (FDA) Adverse Event Reporting System (FAERS) is integrated into Evidex. Advera Health Analytics reports, “Evidex is the first web based platform that combines annotated data from curated clinical trial results with structured real world drug evidence” [1]. The clinical trials results are selected from ClinicalTrials.gov and other published research with “over 2,000 drugs covered in the database and over 800 clinical trials” [1].

Advera Health Analytics states that “2018 WILL BE the year that the pharmacovigilance industry embraces the next generation of drug safety data, analytics, and software, what we call Pharmacovigilance 2.0” [2]. Pharmacovigilance is the collection, detection, assessment, monitoring, and prevention of adverse events with pharmaceutical products, which typically applies to safety departments in pharmaceutical companies. According to Advera Health Analytics, its:

proprietary clinical trials safety outcomes database, when linked with optimized post-approval spontaneous reporting data from the FDA Adverse Event Reporting System (FAERS) and VigiBase, claims data and social media provides pharmacovigilance professionals with software, data and analytics to track emerging safety issues through multiple data sets, validate signals seen in spontaneous reporting and engage across these various data sets in dynamic and proactive manner. [3]

Evidex is a subscription-based service. Institutional users are required to create a personal account and, once created, will receive email confirmation from the institution’s assigned Evidex product specialist, along with login procedures and the product specialist’s contact information. Occasionally, the Evidex product specialists will send targeted emails to subscribers, such as updates on the database, and can create customized promotional materials.

MAJOR FEATURES
Once logged into the database, the user sees a familiar Google-like layout and can conduct a broad search using keywords. Also available is a drop-down menu with the following categories: drugs, companies, indications, classes/mechanisms of action, adverse events, and adverse events analysis. Auto-suggest displays terms by category, then narrows down results as the user types, and is useful when the user is uncertain about the correct spelling of a drug name. It also provides the generic as well as the brand name of a drug. For librarians or experienced searchers, a feature called “Custom Drug Analysis” provides a custom search option that is conveniently located below the search box.

On the results page, the user will find comprehensive information about a particular drug. At the top of the results page, the drug name is listed along with its generic and brand name. To the right is a “Boxed Warning” (if applicable) and “RxScore,” which is a 1-100 scale that represents an overall assessment of a drug’s risk to a patient: the lower the score, the safer the drug is with less serious side effects.

Underneath the drug name are several tabs: Overview, Alerts, FAERS, Clinical, VigiBase, Social, and Claims. The Overview section includes useful information such as the date when the FDA approved the drug, how many drug names are associated with the specific drug, and when the information on
the drug was last updated. It also
includes the drug’s classification
and indications. The Alerts tab
provides information on any im-
portant updates about the drug,
such as label changes. The FAERS
tab includes a report on a drug’s
adverse events, cost burden, safety
score, outcomes, cases, and a sum-
mary of the information. It is im-
portant to note that a detailed chart
is provided under Adverse Events,
where adverse events are listed
along with an RxSignal, cases, re-
ports, serious events, and literature
references. RxSignal is proprietary
 tool of Advera Health Analytics
that monitors the adverse events
that are not listed on a drug’s label,
potentially triggering a label
change if there is an increased rate
of reports.

The Clinical feature provides
clinical results through ClinicalTri-
als.gov, although some drugs
might not have clinical trials avail-
able. Vigibase, Social, and Claims
features require an additional sub-
scription cost and are geared to-
ward pharmaceutical and
insurance companies.

Evidex has integrated a World
Health Organization database,
Vigibase, which generates global
case safety reports and is adminis-
tered by Uppsala Monitoring Cen-
tre in Sweden. Vigibase is a:

pharmacovigilance database, in which
information is recorded in a structured,
hierarchical form that allows flexible
and easy retrieval and analysis of the
data. Its purpose is to provide the evi-
dence from which potential medicine
safety hazards (signals) may be detect-
ed and communicated. [4]

Advera Health Analytics notes
that:

While FAERS pulls in adverse events
reports from patients outside the U.S.,
it is highly concentrated by U.S. medi-
cations and submissions by U.S. pa-
tients and healthcare providers.
Adding the Vigibase data allows a
more global perspective on medication
use and patient safety with approxi-
mately 15 million reports from over 100
countries that cover 90% of the world’s
population. [5]

The Social feature monitors so-
cial media for drug side effects, and
the Claims feature tracks emerging
safety issues through electronic
health records (EHRs), claims, and
clinical trials. Advera Health Ana-
lytics can work with the subscrib-
er’s EHR provider to potentially
integrate data into their analytics.

The Adverse Events search re-
results page presents information on
cases reported to have an adverse
event as well as reports on top
drugs and their indications for ad-
verse events. Users will find de-
tailed charts and descriptions of
different terms that are similar to
the results for drugs.

Upon request, Advera Health
Analytics can provide institutions
with user statistics, although these
are not COUNTER compliant. The
statistics provide information on
page use and the number of users
accessing the database. This informa-
tion can be useful when institutions
make decisions on renewing
their subscriptions with the data-
base.

AUDIENCE
According to Advera Health Ana-
lytics, this tool is intended for a
variety of users including pharma-
ceutical companies, health insurers,
hospitals, academic institutions,
and financial institutions. Pharma-
caceutical companies might utilize
Evidex to understand comparative
safety issues in FDA-approved
drugs, while health insurers and
hospitals could use this database
for clinical evidence, costs, and
safety data to ensure better deci-
sions for patients. Academic insti-
tutions and libraries can access this
database to conduct research on
clinical and safety issues for poten-
tial further study.

USABILITY
Generally, Evidex requires addi-
tional training for those who are
not familiar with the different types
of statistical information on the
result pages. If questions arise, us-
er can call, email, chat, or go to
Evidex’s Knowledge Base, where
product searching assistance is
available. A chat icon is conven-
iently located on each web page,
and the support team responds in a
timely manner. The Knowledge
Base is a brief guide on how to use
the different features of the product
and provides definitions, method-
ologies, and images of the product.
Users can also request a webinar
with their assigned product spe-
cialist for a more in-depth over-
view of the resource. In addition,
users can “hover” over each col-
umn header on results pages to
access pop-up descriptions.

A search box is displayed on
every results page to make it sim-
ple for users to search for a drug or
adverse event immediately. While
it is convenient to have the search
box on each page, this reviewer
noted problems where results
would not display for the new
search, and the reviewer had to
return to the home page.

All literature references in Evi-
dex are linked to PubMed, and
Advera can work with institutions
to connect the PubMed link to spe-
cific holdings. This reviewer found
that while searching in this data-
base, the results pages were slow to
load and explanations for some of the data were not provided. For example, on the results page of drug adverse effects, a definition button is displayed, but there was no information provided. There was also no explanation for the RxScore, leaving users who are unfamiliar with Evidex wondering what it represents.

**CONCLUSION**

Evidex is an efficient Google-like platform that offers an abundance of information about and analysis of drug safety and adverse events using FAERs and ClinicalTrials.gov to curate results. Custom Drug A-E Analysis is an excellent advanced feature for librarians to use to focus their searches, while the auto-suggest assists in a quick, simple search. Overall, this database is easy to navigate, and the explanations of the charts and terms are excellent and comprehensive.

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