

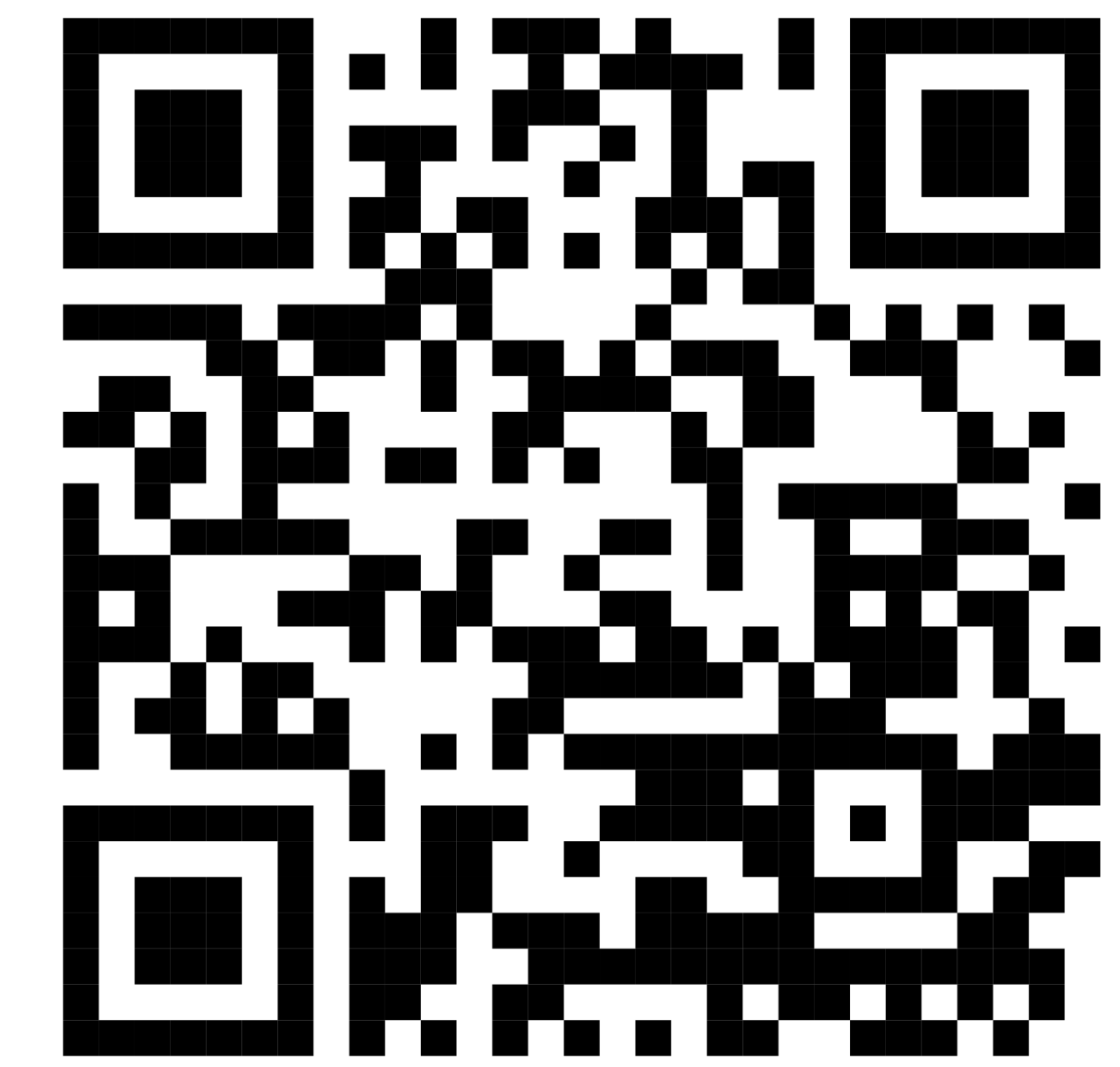
CemConnector:
A RESTful application programming interface and client library for the Common Evidence Model (CEM)

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- INTRO:**
- The common evidence model is an incredibly useful resource containing information from clinical trials, drug labels, literature and spontaneous reports (1,2).
 - This is commonly used to assist in the selection of negative control outcomes/exposures, but combines available pharmacovigilance information in a single resource
 - Currently, access is limited and too few people are taking advantage of this resource.
 - CemConnector makes it easier to access this repository of information

- METHODS**
- The code is written in R and is fully open source
 - Uses pre-computed lookup across OMOP standard vocabulary to improve performance
 - Queries concept sets can be made with RXNorm ingredients or SNOMED terms
 - Data can be accessed from public API (after requesting a key) or via a database directly

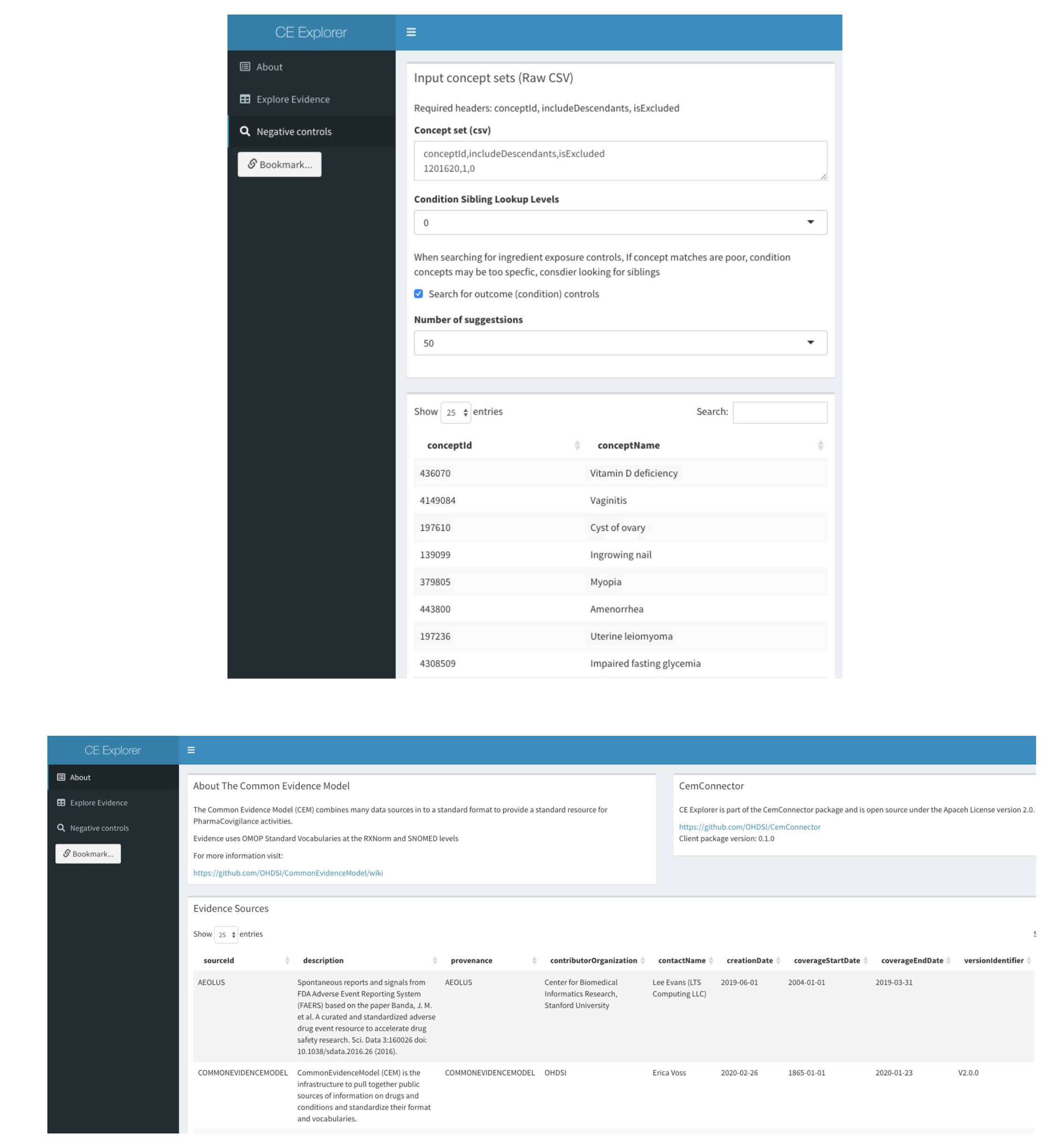
- RESULTS**
- Negative control outcomes and exposure sets can be generated in a few seconds
 - Shiny application provides convenient interface to search controls
 - API allows easy integration into other tools
 - Controls can now be programmatically selected in population level estimation studies directly



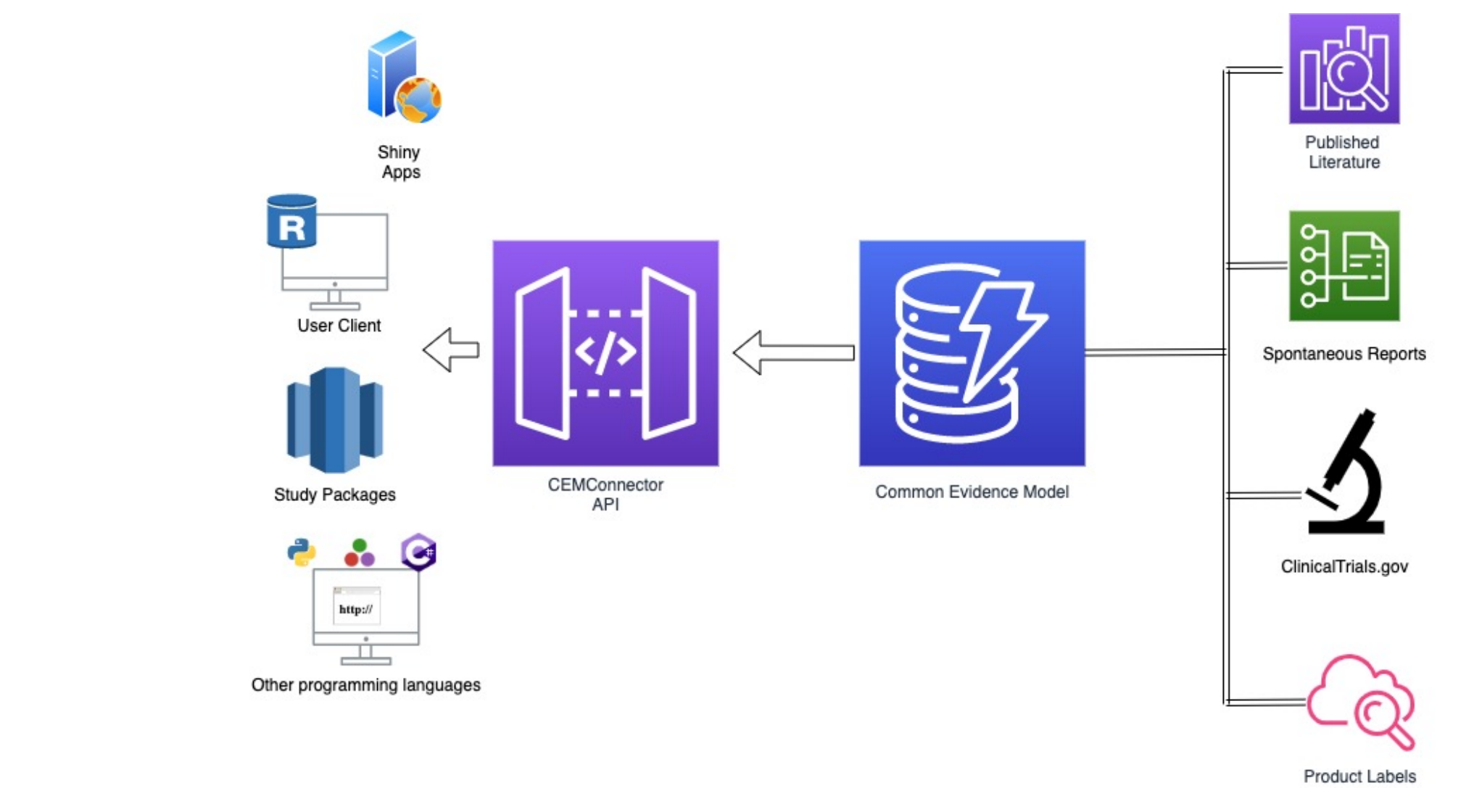
<https://github.com/OHDSI/CemConnector>

CemConnector is an R Package and RESTful API for utilizing the Common Evidence Model for selecting negative controls, enriching studies and exploring relationships between outcomes and exposures

Screenshots of Shiny App



System level overview



References

- Voss EA, et al. Accuracy of an automated knowledge base for identifying drug adverse reactions. J Biomed Inform. 2017 Feb 1;66:72-81.
- Boyce RD, et al. Bridging Islands of Information to Establish an Integrated Knowledge Base of Drugs and Health Outcomes of Interest. Drug Saf. 2014;(37):557-567

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