OHDSI

The Observational Health Data Sciences and Informatics (or OHDSI, pronounced "Odyssey") program is a multi-stakeholder, interdisciplinary collaboration to bring out the value of health data through large-scale analytics.

Goal

The ultimate goal of the project is to improve health and this is to be achieved by empowering a community to collaboratively generate the evidence that promotes better health decisions.

In order to achieve that goal fresh methodological approaches are encouraged as long as they are accurate, reproducible and well-calibrated. Everyone is welcome to participate and the community decides on areas to prioritize for research.

All outcomes like methods, tools and evidence are strived to be made publicly available for anyone to benefit from.

Motivation

In order to evaluate the performance of the data mining method created by the UMC we could not hope to find a better setting to do that. In order to make the method available to the community we wanted to implement it on a data model that everyone could use. Since a common data model had been created we wanted to adjust our method to align to this model. The outcomes of the project has been excellent and the spirit within the project has been very open and welcoming as well.

Our role

We have taken part in the project as a method collaborator where we developed a data mining method called IC temporal pattern discovery for large scale screening of observational data. In the paper from 2012 by Ryan et. al it is shown that the method performs among the top 3 method across all databases that it was tested in.

Another aspect of OHDSI is the establishment of a knowledgebase of information related to the side effects of medications. This source of information is called Laertes and one example of an application built upon this source can be found here: http://ec2-52-3-251-1.compute-1.amazonaws.com/KnowledgeBaseWeb/11.