# Minutes of the Population-Level Estimation Workgroup

April 19, 2017

Present: Chan Youseng, Peter Rijnbeek, Doyeop Kim, Hojun Park, Other Ajou staff, Nicole Pratt

Martijn presents on the recent OHDSI study involving keppra and angioedema

Chan: Did you exclude switchers? Martijn: not explicitly, but per-protocol analysis would exclude subjects when they stopped taking the one drug.

Nicole: only first use? Martijn: yes

Chan: since it is a rare event, there must have been a lot of random error? Martijn: indeed, and this shows the power of the OHDSI network. Each database on its own had little statistical power (as expressed through wide confidence intervals), but in this case because little heterogeneity and bias was observed we could combine across sites using meta-analysis for random effects.

Peter: Could we do a first round of a study to establish feasability before going through all the trouble of running a study? Else it is a waste to go to governance board when you turn out to have no data. How to make those cohort definitions in ATLAS better? Primary criteria also needs to be split up.

Peter: it helps that OHDSI protocols follows standard template. This makes it much easier for the reviewers in our board.

Martijn argues that since we’re now very efficient at the one-off studies, we could think about large-scale studies answering many questions at once.

Chan: prefers a single-question driven approach. Large scale can be fuzzy results. Every drug can have different indication.

Peter argues this could be a two-step approach: large-scale first, to find things to focus on in one-off studies.

Peter + Chan: outcome definitions are problem in general. Definitions created in one database do not always work as intended in other databases.

Martijn also presents on the SOS challenge research project.

Peter mentions that others are also working on this same problem.

Nicole: hip replacement: may or may not use drug depending on how they did it. Fracture of replaced hip would get very different code. Martijn: I forgot to mention that people with prior hip fractures are excluded from the study.

Chan: would like to present on his study on hypertensive drugs at the next meeting.