# Guidance on performing peer review

## Gowtham A. Rao

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## 1 PhenotypeLibrary & HADES

This document is a DRAFT guidance.

If you accept an invitation to perform a peer review on a cohort definition submitted to the OHDSI Phenotype Library, please review this guidance document.

## 1.1 Note

- OHDSI subscribes to open-peer review.
- Reviewers are invited from a pool of volunteers via the OHDSI Phenotype Development and Evaluation Workgroup. More than one reviewer may be asked to perform a peer review. All reviewers' review and identity will be open.
- You may perform a live or asynchronous review. A live review may be done in the OHDSI Phenotype Development and Evaluation Workgroup, where it will be video recorded and archived. An asynchronous review is a written review done as a forum post in the original thread started by the submitter on forums.ohdsi.org.
- Anyone in the community may engage in the conversation and provide input on both the contribution and the review.

## 1.2 Levels of Peer Review

The workgroup lead or designee moderator will interpret your review and assign a level of confidence to the submission. The levels are incremental, meaning a definition that has level 3 status should have also met levels 2, 1, and 0.

## 1.2.1 Level 0

All cohorts in this level have passed the minimum submission requirements detailed here. They are now ready for peer review. If rejected, the cohorts will remain in Level 0, with a withdrawn = TRUE status.

#### 1.2.2 Level 1

These cohorts have completed at least one peer review, accepted based on a high-level summary of the evaluation contributed by the submitter. This level is the lowest level of review; we expect > 90% of definitions that have passed Level 0 to pass Level 1 review.

#### 1.2.3 Level 2

These cohorts have completed at least one peer review, accepted by the reviewer. Acceptance requires: - Independent review of Cohort Diagnostics (and PheValuator when available) from the submitter. - Verification that errors such as sensitivity errors, specificity errors, and date misclassification errors are discussed and observed. - Independent evaluation for errors by reviewing submitted materials. - A recommendation to accept the definition with known errors.

## 1.2.4 Level 3

A peer reviewer has reviewed the definition and independently performed an evaluation on a new data source, accepting the definition with known errors. The second reviewer should use a data source not part of the original submission for the review. See evaluation guidance.

#### 1.2.5 Level 4

The cohort definition has been used in multiple studies, publications, or workshops, and there is a general consensus that it is well-adopted. Its performance characteristics have been stable in different types of data sources. The definition has been referenced and used by others, and the output is considered high quality.