

Data Extraction QC Guidance

The quality control (QC) process is an important step in conducting a systematic literature review. Following the data extraction conducted in HAWC, a 100% QC of the extracted studies should be performed. This means that every study extraction is conducted by one data extractor, then the extracted data is evaluated by a different reviewer. The QC process ensures that the extracted data is reliable and can be used meaningfully. The following process should be utilized to perform the QC:

1. Have the following resources available for each study:
 - a. The study document (report, publication) and any available supplemental materials
 - b. The data extraction guidance
 - c. The extracted data in HAWC
2. Briefly review each study giving particular attention to the methods and results section. Then evaluate the extracted data in HAWC cross-referencing the relevant portions within the study (e.g. bibliographic information, experimental setup, reported data, etc.).
 - a. As the reviewer evaluates the extraction, keep in mind the type of endpoints meaningfully useful to TCEQ and whether extraction and subsequent QC is necessary.
 - i. Primacy should be given to apical endpoints with mechanistic endpoints being of potentially less importance.
 - ii. Pay particular attention to available dose response data and whether figure digitization is necessary to obtain the raw data.
 - b. The reviewer should document any minor changes made to the data extraction entry in HAWC within internal communications field of the study record
3. Any discrepancies between the extractor and the reviewer should be discussed to arrive at a consensus on the appropriate way to capture the data. This may include the inclusion or exclusion of specific endpoints or ways in which the data was extracted.
 - a. If consensus cannot be reached, the issue should be elevated to the larger group of extractors and reviewers to align globally on the issue.
 - b. Document any subsequent changes in the internal communications field of the study record.
4. Importantly, any changes made by the reviewer should be documented for any potential follow-up actions or clarifications.