

Feasibility Search

Before you begin the process of undergoing a meta-analysis or systematic review, it is important to assess the feasibility of the project. A feasibility search can save time and money, help with structuring the final research question and PICO elements, and can ensure that your review or meta-analysis will be a valuable contribution to the literature.

Run a Search on PubMed or NK

Start by identifying the ideal research question and PICO elements of interest. Generate a list of search terms related to this research question and perform a search in PubMed or NK. See [Search Optimization](#) for more information on optimizing search terms. Take note of the number of search results.

If there aren't many results:

1. Try adjusting the search terms to see if more results are generated. Google the search terms to look for similar terms that could be used in the search. Include variations of words (ex: surgery AND surgical), British spellings, and spelled out abbreviations.
2. A systematic review or meta-analysis on your research question may not be feasible. Check with your team if writing a primary research article on your topic of interest is possible. This could help to fill in the gap in the literature.
3. The research question and/or PICO may need to be adjusted. Try removing one PICO element at a time to determine which of the search terms are limiting the number of results. When one or more PICO elements are identified as being too restrictive, discuss with your team if those PICO elements can be expanded or adjusted while still answering your research question. The research question could also be adjusted.

If the search produced several results:

1. Search for a review or meta-analysis to see if one has already been published on your research question. If you find one, check with your team to see if your research question can be adjusted to add something new to the literature or if an updated review is warranted.
2. Read through reviews and meta-analyses related to your research question to see where there are gaps in the literature and whether your research question already addresses these gaps.

Assess Quality and Coverage of Search

Screen through your search results to assess whether they address your research question, match the PICO, and provide quality data for your systematic review or meta-analysis. This step can be done as the [full screening process](#) or limited to a preliminary screening of a subset of results (ex. Screen results from one search string or one database).

1. Read through titles and abstracts of primary research articles and keep track of whether they match the PICO and the research question. If few studies end up matching the research question and/or PICO, take note of additional terminology and abbreviations used in these studies that could be included in the search terms to help expand the search results.

2. Take note of the study type. If all of the study types are retrospective or case studies, discuss with your team whether you want to move forward with a systematic review or meta-analysis. [A meta-analysis may not be possible.](#)
3. Take note of the number of patients in each study. If most studies have few patients (e.g. <10), discuss with your team whether you want to move forward with a systematic review or meta-analysis. [A meta-analysis may not be possible.](#)
 1. If a meta-analysis seems feasible, an assessment of the available randomized controlled trials and other comparative study types is needed to determine whether a valid network meta-analysis is feasible. This final assessment may be performed after data extraction if the team agrees. It is important to assess whether there are differences in study and patient characteristics across comparisons that affect the summary measures of treatment effects (odds ratio or hazard ratio) for the interventions of interest relative to an overall reference treatment.¹ The decision to perform a meta-analysis should be based primarily on clinical judgment of whether differences among studies may affect the comparisons of treatments or make some comparisons inappropriate.¹
 2. If the study quality and data are insufficient for a meta-analysis, systematic review or another type of review may be more appropriate. For information about other types of reviews: <https://guides.temple.edu/c.php?g=78618&p=3879604>

Next Steps

Once you have determined that your review is feasible, use the information on related terms, PICO, and study availability to [optimize your search terms and conduct your full search.](#)

References

1. Cope S, Zhang J, Saletan S, Smiechowski B, Jansen JP, Schmid P. A process for assessing the feasibility of a network meta-analysis: a case study of everolimus in combination with hormonal therapy versus chemotherapy for advanced breast cancer. BMC Med. 2014 Jun 5;12:93. doi: 10.1186/1741-7015-12-93. PMID: 24898705; PMCID: PMC4077675.

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