

ACR Appropriateness Criteria® Literature Search Process

The ACR Appropriateness Criteria® (AC) are evidence-based guidelines to assist referring physicians and other providers in making the most appropriate imaging or treatment decision for a specific clinical condition. The AC assess the benefits and harms of recommended medical care or advanced diagnostic imaging options using scientific evidence to the extent possible using clinical judgment and expert consensus as necessary. The guidelines are developed by experts in diagnostic imaging, interventional radiology, and radiation oncology with participation from over 20 medical societies.

The goal of the AC literature search process is to ensure the consideration of all relevant evidence for a topic. The AC literature search process is transparent, replicable and systematically identifies the available peer-reviewed medical literature for a topic. The literature is evaluated for its contribution to the topic. AC topic authors evaluate the literature prior to updating or developing the AC topic.

At the end of the process, the search strategy is documented and includes a listing of database(s) searched, a summary of search terms used, the specific time period covered by the literature search including the beginning date (month/year) and end date (month/year), and the date(s) when the literature search was done. The study selection description details the number of studies identified, the number of studies included, and a summary of inclusion and exclusion criteria.

Process Overview

- The ACR staff and topic author identify keywords and other search parameters to be used in the literature search based on the topic scope and procedures or treatments that will be addressed in the topic.
- ACR staff conducts a comprehensive literature search in MEDLINE to identify relevant peer reviewed medical literature.
 - The two general classes of keywords used in the search are those related to the condition (eg, ankle pain, fever) and those that describe the diagnostic or therapeutic intervention of interest (eg, MRI, radiotherapy).
 - The search terms and parameters are combined to produce the most relevant articles to address the AC topic.
 - For topic updates, the search is restricted to one year prior to when the last update was performed, unless otherwise specified by the author.
 - For new topics, the search is restricted to the last ten years, unless otherwise specified by the author.
 - The search results are limited to articles that have abstracts and human subjects.
 - Summary articles or case reports are often excluded from final results.
- The completed search, including the search strategy, is sent to the author prior to developing or revising the AC topic.
- The author assesses the literature to identify relevant articles to include in the topic. The author may request staff conduct additional searches, may use citations found in the bibliographies of relevant articles, or incorporate a limited number of citations the author knows of.
- Author returns their assessment of the literature search results to the ACR staff. All articles included in the document that are outside of the ACR staff conducted literature search(es) are documented to indicate how the citations were identified. For example, if the author conducted additional searches without ACR staff, those search terms are incorporated into the search strategy and the study selection results for all additionally found articles will be documented.
- The author uses the relevant literature to draft or revise the AC topic and embeds the appropriate citations throughout the document.
- After the updated document is finalized, ACR staff prepares a literature search summary statement that includes the time period covered by the search, the database used for the search, a summary of the terms used, the number of articles identified in the search, the number of articles from the search included in the AC topic, and a summary of inclusion and exclusion criteria.