

Not just keywords but MeSH keywords: Do mention for better visibility of your publication

Submitted: 18-Feb-2023

Revised: 28-Feb-2023

Accepted: 28-Feb-2023

Published: 16-Mar-2023

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Access this article online
Website: www.ijaweb.org
DOI: 10.4103/ija.ija_125_23
Quick response code


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With the recent advancements in internet facilities, selection of effective keywords has now become an easy task.^[1] These keywords help in indexing published literature in a journal. The success of any published literature depends on the number of citations of an article. A wise selection of keywords by the authors help in the wider dissemination of an article.

Medical Subject Headings (MeSH) are standardised keywords present in the MeSH database to index articles in MEDLINE/PubMed.^[2] The MeSH database is a vocabulary thesaurus developed by the National Library of Medicine (NLM) for indexing articles in PubMed.^[3] MeSH terms provide information on the content of an article. Changes in medical terminology in published literature is reflected by MeSH headings which are regularly updated by the NLM.

Four terms are included in the MeSH vocabulary. These are MeSH headings, subheadings, supplementary concept records (SCR) and publication type. The concept mentioned in biomedical literature is called 'MeSH headings' (descriptors). Attached to the MeSH headings are 'subheadings' (qualifiers) that clearly describe a definite aspect of a concept. Chemicals, drugs, and rare diseases are labelled as 'SCR'. 'Publication type' describes the type of research that is indexed.

The next question that arises in the mind of the researcher is to how to search for MeSH keywords on

the PubMed database. Currently, authors use mainly three methods to search for said keywords: first, using the MeSH browser; second, using MeSH keywords from the selected PubMed articles; and third, using the MeSH on Demand tool.

In the MeSH browser method, you can open the PubMed home page and then look for 'Explore' or 'More Resources' and click on the MeSH database link. The window showing the word 'MeSH' on the left-hand side of the ribbon will be seen. From here, look for the horizontal panel where you can type words for direct search of MeSH terms. You can type any word related to your research; for example, you can type in 'nerve block' and then click on 'Search'. The next page will show the definition of the word that was typed (if it is a PubMed MeSH keyword), or else it will suggest an existing MeSH keyword to you.^[4]

The second method for finding MeSH keywords in PubMed is to open an abstract of the relevant article and look below the abstract for MeSH terms. It will show all of the MeSH terms related to that article.

The third method involves the MeSH on Demand tool in which you can copy and paste up to 10,000 characters. Following this, MeSH terms are highlighted using natural language processing and the NLM Medical Text Indexer. This method assists authors in looking up MeSH keywords even without

having done the MeSH indexing or even in looking up any downloads of MeSH for the article. You can start by pasting the link (<https://meshb.nlm.nih.gov/MeSHonDemand>) on the browser to open MeSH on Demand. After copying and pasting the concerned text or abstract, press the button that reads 'Find MeSH term'. All MeSH terms will be highlighted in the paragraph and a list of ranked MeSH words or an alphabetical list of MeSH terms will be displayed on the right side of the screen.^[5]

The impact of using MeSH terms for keywords in publications are that it increases the scientific visibility of the article and its chances of it being retrieved by authors who are performing a literature search for relevant topics.^[6] The MeSH database has a hierarchy or tree structure because of which both broader and more specific searches yield better results.^[7,8] The terms are annually updated in the English language to reflect changes in terminology and account for variations in language, synonyms, and alternate spellings.

MeSH terms provide a universal article labelling system. The official words or phrases that are labelled as MeSH terms represent a particular biomedical concept in MEDLINE. The official MeSH list provides terms for indexers to label an article. This particularly helps in locating an article specific to a topic. Efficient search is facilitated by MeSH terms.

If MeSH terms are not used as keywords by authors and the journal does not insist on its use, this leads to poor visibility of the article, thereby reducing the chances of the article being cited. The impact of this is dual: for the author, there are less chances of their paper being cited and them being recognised and acknowledged for their research; and for the journal, there is a lower impact factor. The impact factor is calculated by the number of articles that are cited from the journal in the last two years.^[9]

The MeSH browser has certain limitations.^[10] One may not be able to retrieve an article that was recently

published and that is yet to be indexed on MEDLINE due to the short lag time between the citations that are entered into the PubMed database and their description with MeSH terms. As MeSH terms are not available for most genes, it is difficult to find research topics with gene names. MeSH terms may not be added to the latest emerging research. The articles are also difficult to retrieve if they are not indexed for MEDLINE.

For any further questions or queries regarding PubMed MeSH keywords, the authors can send them to at NLMESH-MOD@mail.nih.gov.

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How to cite this article: Katarikar MD, Ahuja V, Doctor JR. Not just keywords but MeSH keywords: Do mention for better visibility of your publication. *Indian J Anaesth* 2023;67:243-4.