There's a New PubMed in Town

PubMed is a favorite research tool for veterinarians. Practitioners use it for a quick dip into the literature on the clinic floor; researchers use it as a source for grant proposals and to review articles and everything in between. This column looked at PubMed in December 2016 and February 2017. A lot has changed since then.

Why is PubMed such a favorite? It is freely available online. It indexes the core of veterinary literature and the broad biomedical sciences. Increasingly, it may provide links to free, legal copies of articles. Perhaps most importantly, it can provide pretty darn good results from basic search terms.

Recently, has PubMed looked and perhaps behaved differently? Yes, it has. Why? For the past few years, the National Library of Medicine has been working on a completely new PubMed. New PubMed was launched in September 2019 and became the default in May 2020. This isn't a cosmetic change. The site is mobile-responsive; that means it looks and behaves the same on a variety of devices from smartphones to tablets to laptops. It has additional information about articles, including the reference list. Most importantly, the behind-the-scenes programming that takes your search terms and processes them to return your results is new.

Some things about searching PubMed have not changed. When you enter a string of search terms, PubMed connects them with "AND." It

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attempts to match your search terms with overarching standard terms called Medical Subject Headings (MeSH). MeSH is why you can enter a single term and do not necessarily need to enter all the synonyms. You enter the search term "cancer" and PubMed also will search the MeSH of "neoplasms." The advanced search functions remain largely unchanged.

Some things have changed. PubMed now automatically looks for synonyms for your search terms; this is called synonymy, which is a fun word. It automatically truncates your search terms; this means it looks for plurals and additional grammatical forms of the word.

The bottom line is that these changes may make no difference with a specific search. They also may change the results dramatically for the better or worse. There are a couple of important things you can do to evaluate and improve your results.

1. Look at the search details to see how PubMed interpreted and processed your search terms. This had been on the results page. It moved. It is now in the Advanced Search. Look for the > next to each search. Click that, and it will display the details. You can edit these and rerun the search to change and, hopefully improve, your results.
2. Look at the search details closely and decide if you want or need synonyms and grammatical variants that have been added automatically. Consider rerunning your search with each search term enclosed in quotes because this should turn off all the automatic interpretation. Searchers are trained to place phrases in " "; in this case, it is your single terms.
3. Change the way your results display if you want the most recent articles to be shown first. The new default is to display in "Best Match" order. Click display options, and then sort order to see the most recent first.
4. Provide feedback about the new PubMed to the National Library of Medicine. Look for the green feedback button in the lower right of each PubMed webpage.

Online training materials are available from the National Library of Medicine at https://learn.nlm.nih.gov/documentation/training-packets/T0042010P/. Training materials cover a wide variety of topics and include short videos, handouts, tutorials and classes. If you teach others, there is a link to a Trainers' Toolkit. New materials are added periodically.

If you want to read details about the new search, it is described in "Best Match: New relevance search for PubMed," published in *PLOS Biology*, 2018. It is freely available at https://doi.org/10.1371/journal.pbio.2005343.

Texas veterinarians may contact the Medical Sciences Library at Texas A&M University for assistance at no cost for reference service, literature searching and copies of articles, chapters and conference papers from our collection. Details can be found at http://tamu.libguides.com/txvetalum.