TIPS FOR ADVANCED SEARCHING: TRUNCATION [1], WILDCARD [2] AND PROXIMITY [3] OPERATORS

It is essential to use subject headings in a search strategy, but searching for free text terms is often necessary to yield good results. Truncation, wildcard and proximity operators increase the relevancy of retrieval of free text searches and can be used in many biomedical databases. Familiarity with these operators, and knowing how to use them properly, can greatly enhance your search results.

1. **Truncation**: A truncation symbol at the end of a word will retrieve variations of the ending of the word.

2. **Wildcard**: Wildcard operators act as a substitute for a character within or at the end of a word. They are particularly useful when attempting to account for regional spelling variations.

3. **Proximity**: Proximity operators increase the relevancy of your free text search results by allowing you to search for words that are near each other in the record.

EXAMPLES OF OPERATORS IN OVID MEDLINE			
	Operator	**Command**	**Example**
Truncation	$ (unlimited) $n (limited to specified number of characters)	Find alternate endings to this word.	**Nurs$** (will find nurse, nursing, nurses, etc.) **Path$1** (will find path or paths)
Wildcard	# (1 character) ? (0 or 1 character)	Stand-in for 1 character. Stand-in for 1 character, if it exists.	**Wom#n** (will find **woman** or **women**) **An?esthesia** (will find **anesthesia** or **anaesthesia**)
Proximity	adj$n$	Search for one word within n number of words of another.	**patient adj3 anxiety** (will retrieve records where patient and anxiety appear within 3 words of each other)

Comprehensive searches of the literature usually require searching more than one bibliographic database. When adapting your search strategy from one database to another (or from one interface to another, as in the case of Medline via Ovid to Medline via PubMed) it is important to remember that subject headings and operators may be different or even nonexistent.

OPERATORS IN DATABASES ACCESSIBLE WITHIN THE MUHC			
Database	**Truncation**	**Wildcard**	**Proximity**
Medline – Ovid **Embase - Ovid** **PsycInfo – Ovid** **Social Work Abstracts – Ovid**	$ $*n* (limited to specified number of characters)	# (1 character) ? (0 or 1 character)	Adj*n* (in any order)
PubMed	*	Not available	Not available
CINAHL	*	? (1 character) # (0 or 1 character)	N*n* (Near – in any order) W*n* (Within – in specified order)
Cochrane Library	*	? (1 character)	NEAR/*n*
Web of Science	*	? (1 character) $ (0 or 1 character)	NEAR/*n*
Scopus	*	? (1 character) * (0 or multiple characters)	W/*n* (in any order) PRE/*n* (first term must precede the second by specified number of words)

To learn more about using these electronic resources, register for a training session, or contact your hospital librarian.

Last updated: August 2016