MeSH Changes and PubMed Searching: Class Handout

Check your learning and follow along with the class by answering the questions below.

# Introduction and Basics Review

1. Where do MeSH staff post recent MeSH developments year round?
2. Where is documentation and guidance on MeSH changes in MEDLINE published in November and December?
3. What should you check your saved PubMed searches for?
4. How many additional MeSH terms are added when my search maps to **Migraine Disorders**?

# Two Dates in MeSH

1. When two dates are listed for “Year Introduced,” can you use the term to search the concept back to the oldest or newest date listed?

## Quiz 1:

* How far back can you search with the MeSH term **Mpox (monkeypox)**?
  1. 1963
  2. 1997
  3. 2004
  4. 2023

## Quiz 2:

* How far back can you search with the MeSH term **Coping Skills**?
  1. 1963
  2. 1992
  3. 2024
  4. 2023

# Change 1: New Term with the Same Meaning

When MeSH renames a concept (e.g., Gammainfluenzavirus):

* The existing indexed records are changed.
* The old term is added as an Entry Term.

To adjust your searches:

1. What should you usually do?

## Quiz 3:

* Which MeSH term does a search for **Russell’s Viper** map to?
  1. Russell’s Viper
  2. Daboia
  3. It does not map
  4. Vipers

# Change 2: New Term is More Specific

When MeSH adds a term to gain specificity (e.g., Emergency Room Visits):

* Existing indexed records are generally NOT changed.
* The “old” term continues to be used.

To adjust your searches:

* Consider using the new, more specific term to retrieve newly indexed records.

1. Use Previous Indexing information and/or the broader term with which search tag to search previously-indexed records?

## Exercise 1:

* How far back can I search with **Tibiofemoral Joint**?
* Where do I look in the MeSH record for terms used prior?
* What field tag do I use to limit to records indexed between 2005 and 2023?

# Change 3: Hierarchy Changes

## Exercise 2

* If you had a saved search for **Arbovirus Infections** previous to 2024, and you wanted to continue to retrieve the same scope of literature, would you change your saved search? If yes, how?

## Exercise 3:

* Does a saved search for **Encephalitis, Arbovirus** need to be changed if you want to continue retrieving the same scope of literature? If yes, how?

MeSH hierarchy changes (e.g., Mosquito-Borne Diseases) can:

* Result in dramatic retrieval changes.

1. Generally, they offer an improvement to your what?

To adjust your searches:

* Take a fresh look at the new hierarchy and reconsider your search

# Exercise 4:

* You want to search PubMed as comprehensively as possible, back to 2010, for literature related to **Genetic Risk Score**. How would you do this?

# Exercise 5:

* You want to search PubMed as comprehensively as possible, back to 2019, for literature related to **Mass Shooting Events**. How would you do this?

# Summary of Tips:

To adjust to changes in MeSH:

* Check MeSH mappings in your PubMed Search Details
* Check automatic explosions in MeSH
* Use the “Year Introduced,” Previous Indexing guidance and broader terms with [mhda] to craft searches for older records.
* Read about the MeSH changes in October and the year-end changes to MEDLINE in December in the NLM Technical Bulletin.

# Pre/Post Test:

1. When a new, more specific MeSH heading is added to the vocabulary, it is applied to records that were indexed in previous years.
   1. True
   2. False
2. When a MeSH term is replaced, the term that was replaced is retained in MeSH as a(n):
   1. MeSH Term
   2. Entry Term
   3. Supplementary Concept
3. The PubMed search results for a new, more specific term (e.g., Blue Light) will be included in the results for the broader term above it (e.g., Light).
   1. True
   2. False
4. If my saved search suddenly retrieves many more or many fewer citations on a regular basis starting at the end of a calendar year, what is the most likely explanation? (Select the best answer)
   1. A changed MeSH term with the same meaning
   2. A new MeSH concept
   3. Hierarchy changes to MeSH

# Useful Links:

2024 Annual MeSh Processing in the NLM Data Discovery catalog: <https://datadiscovery.nlm.nih.gov/stories/s/MeSH-2023-Update-Overview/4ekx-rduw>

NLM MeSH Homepage: <https://www.nlm.nih.gov/mesh/>

2024 MEDLINE Data Changes In the NLM Technical Bulletin: <https://www.nlm.nih.gov/pubs/techbull/nd23/nd23_mesh_annual_processing.html>

Subscribe to the NLM Technical Bulletin: <https://www.nlm.nih.gov/pubs/techbull/stay_current.html>

Dates in MeSH: <https://youtu.be/CBU7FYJ5Hnk>