FDALabel - Advanced Search Option for Text Searches

This guide provides instructions on the **Advanced Search** option for text searches and focuses on how to conduct Boolean searches (searches on a combination of terms) and partial word searches.

What Is Advanced Search?

- **Advanced Search** is a text searching option available in two search boxes of FDALabel: (1) *Labeling Full Text Search* and (2) *Labeling Section(s)*.
- **Advanced Search** is not the default text search option. To use the **Advanced Search** option, select "Advanced Search" from the drop-down menu on the left-hand side of the search box. For more information about the default Simple Search, see Simple Search Guide.
- Unlike the **Simple Search** option, **Advanced Search** does <u>not</u> ignore non-alphanumeric characters such as the hyphen (-), exclamation mark (!), or asterisk (*). For more information on non-alphanumeric characters, see the Query Logic Guide.
- **Advanced Search** allows you to conduct:
  - Boolean searches (searches on a combination of terms)
  - Partial word searches

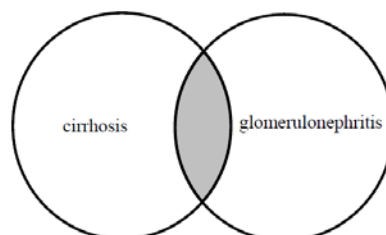## Boolean Searches (searches on a combination of terms)

- You can use the words AND, OR, and NOT to combine search terms and produce more refined and targeted search results. For example, Boolean searches can help you:
  - Filter out results that are irrelevant
  - Expand a search if you are not retrieving enough results
- Boolean searching is a search strategy that uses a system of showing relationships between sets by using the words AND, OR, and NOT.
- With the **Advanced Search** option, when these words (AND, OR, NOT) appear between other words in the search text, they are treated as *Boolean operators*, not as verbatim words within the search text.

Searches using AND

- Returns results that meet ALL criteria entered in a search
- Results in labeling where condition A is met AND condition B is met

Question: How can I find labeling that includes both "cirrhosis" AND "glomerulonephritis"?
Search Criteria Structure: cirrhosis AND glomerulonephritis
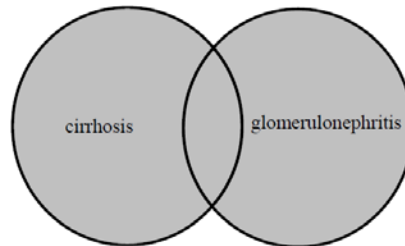
Searches using OR

- Returns results that meet EITHER condition
- Results in labeling that meets either condition A OR condition B

Question: How can I find labeling that includes either "cirrhosis" OR "glomerulonephritis"?
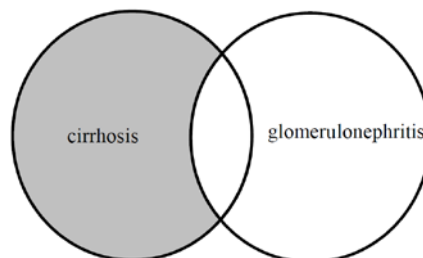**Search Criteria Structure: cirrhosis OR glomerulonephritis**

Searches using NOT (exclusionary searches)

- Returns results that meet one criterion entered in a search but NOT the other
- Results in labeling that meets condition A but does NOT meet condition B
- Searches for labeling that does NOT meet condition B alone are not allowed (i.e., a search term to be included in the results must always precede NOT)

Question: How can I find labeling that includes "cirrhosis" but does NOT include "glomerulonephritis"?
Search Criteria Structure: cirrhosis NOT glomerulonephritis

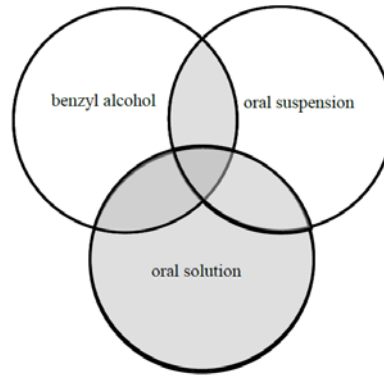# Combining Boolean Operators (AND, OR and NOT)

- You can perform more powerful searches by combining two or more Boolean operators.
- When using multiple Boolean operators, the type of operator determines the order in which they are processed:
  - o NOT is processed first
  - o AND is processed next
  - o OR is processed last

Question: How can I find labeling that includes both "benzyl alcohol" AND "oral suspension" OR any labeling that includes "oral solution"?
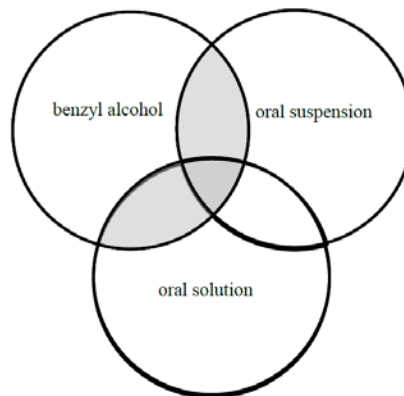**Search Criteria Structure: benzyl alcohol AND oral suspension OR oral solution**

Combining Boolean Operators (AND, OR and NOT) Using Parentheses

When parentheses are used in conjunction with Boolean operators, the text enclosed within parentheses is processed as a single unit.

Question: How can I find labeling that includes either "oral suspension" OR "oral solution" AND also includes "benzyl alcohol"?

Search Criteria Structure: benzyl alcohol AND (oral suspension OR oral solution)

Partial Word Searches

Partial word searches can be conducted using the percent (%) or underscore (_) symbols. The dollar sign ($) symbol can be used for a type of partial word search called stemming.

Partial word searches using %

The % symbol can substitute for multiple characters (zero or more characters) in the search text. For example:

- o A labeling full text search for **dermatop%** will retrieve all labeling containing any word that begins with "dermatop" (e.g., "dermatopathy", "dermatophytes", "dermatophytosis").

- o A labeling full text search for **%steroid** will retrieve all labeling containing any word that ends with "steroid" (e.g., "corticosteroid", "glucocorticosteroid", "steroid").

Partial word searches using _

The _ symbol can substitute for a single character in the search text. For example:

- o A labeling full text search for **Ig_** will retrieve all labeling containing one or more of the following: "IgA", "IgE", "IgG", "IgM", etc.
- o A labeling full text search for **_oil** will retrieve all labeling containing one or more of the following: "boil", "coil", "foil", etc.

Stemming using $

When the **$** symbol is placed at the beginning of a word, the tool attempts to search for the root word as well as some of the stems of that word, such as different tenses or pluralization, using a dictionary that is internal to the database. For example:

- o A labeling full text search for **$bleed** will retrieve all labeling containing "bleed" or "bleeding" because the words share the same root word or stem according to the internal dictionary.

The dictionary is limited in the area of scientific terms, so stemming may not work for every search term.

DO

- Conducting Boolean searches:

    - o Consider the order of search terms and placement of parentheses in a combined search to ensure you are retrieving the desired results.
    - o Remember to close the parentheses when performing a combined search.
    - o To improve the likelihood of obtaining more comprehensive results, consider combining more than one version of a search term with a Boolean operator such as OR. For example:
        - ▪ Searching **CYP 2C19 or CYP2C19** will retrieve labeling containing "CYP 2C19" or "CYP2C19".

- Conducting partial word searches:

    - o Consider the differences **%**, **_**, and **$** will have on your search results and ensure you are applying these characters appropriately to retrieve the intended results.
    - o The stemming dictionary is limited, so your searches using **$** may not include stems of your search term.

DON'T

- Don't use words that you want to function as Boolean operators (AND, OR, or NOT) as the first or last word in the search text. For example:

    - o A search for **not recommended** will display an error message.
    - o A search for **eosinophilia and** will display an error message.