

Pediatric Sedation Research Consortium Database Filter Logic Explanations

The data summary tool has the ability to let you create and save customized searches based on parameters of your own choosing and filter logic utilizing the “**AND**” and “**OR**” functions. You can save filter logic sequences using the “**Manage Template**” function so that you can repeat specific queries without having to re-enter the entire sequence de novo. There is no limit on the number of templates/sequences that you can save.

The “**AND**” function is additive, and the “**OR**” function is disjunctive.

All contiguous criteria connected by “**AND**” are implemented together. Criteria separated by “**OR**” are independent. For example, if you state:

Criterion A	AND
Criterion B	AND
Criterion C	OR
Criterion D	AND
Criterion E	OR
Criterion F	

The logic is: (Criterion A AND Criterion B AND Criterion C) OR (Criterion D AND Criterion E) OR Criterion F

Example #1: You want to evaluate a cohort of procedures done after 1/1/2020 on boys where the procedure was either an MRI or a CT.

To get your desired result, you might enter the following:

Procedure date >= 1/1/2020	AND
Gender=Male	AND
Procedure type=MRI	OR
Procedure type=CT	



However, if you use this filter logic sequence, you will not get the desired data. Instead, you are actually querying for (Procedure date >= 1/1/2020 and Gender=Male and Procedure type=MRI) or (Procedure type=CT); that is, procedures done after 1/1/2020 on boys who had an MRI, or ANYONE who had a CT. The correct filter logic sequence to obtain the population as originally stated would be:

Procedure date >= 1/1/2020	AND
Gender=Male	AND
Procedure type=MRI	OR
Procedure date >= 1/1/2020	AND
Gender=Male	AND
Procedure type=CT	

Example #2: You would like to evaluate a cohort of children less than 3 years of age who underwent an MRI, CT, or ultrasound. If you entered the following:

Age <36 months	AND
Procedure type=MRI	OR
Procedure type=CT	OR
Procedure type=Ultrasound	

You would get children less than three years of age who underwent an MRI plus all children who received a CT plus all children who underwent an ultrasound. To obtain the desired population, you would enter this instead:

Age <36 months	AND
Procedure type=MRI	OR
Age <36 months	AND
Procedure=CT	OR
Age <36 months	AND
procedure=Ultrasound	

If you have any questions, please feel free to reach out to the Research Committee Chair:

Chair: Daniel Tsze, dst2141@cumc.columbia.edu