



# Eviscore Foundation Course

## Module 2 – ACQUIRE

### Worksheet 2C: Boolean Search Practice

**Estimated Time:** 15–20 minutes

**Difficulty:** ★★ Beginner

**Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

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### Learning Objectives

After completing this worksheet, you should be able to:

- Explain the purpose of Boolean operators.
- Use AND, OR, and NOT correctly.
- Build simple search strategies for biomedical databases.
- Improve the precision and completeness of literature searches.

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### Quick Guide: Boolean Operators

| Operator   | Purpose                                                             | Example                                   |
|------------|---------------------------------------------------------------------|-------------------------------------------|
| <b>AND</b> | Narrows the search by retrieving records containing both concepts   | Stroke <b>AND</b> Rehabilitation          |
| <b>OR</b>  | Broadens the search by retrieving records containing either concept | Stroke <b>OR</b> Cerebrovascular Accident |
| <b>NOT</b> | Excludes unwanted concepts                                          | Stroke <b>NOT</b> Hemorrhagic Stroke      |

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# Activity 1 – Choose the Correct Operator

Select the most appropriate Boolean operator.

## Example 1

Stroke \_\_\_\_ Rehabilitation

- ☐ AND
- ☐ OR
- ☐ NOT

## Example 2

Stroke \_\_\_\_ Cerebrovascular Accident

- ☐ AND
- ☐ OR
- ☐ NOT

## Example 3

Stroke \_\_\_\_ Hemorrhagic Stroke

(You only want ischaemic stroke articles.)

- ☐ AND
- ☐ OR
- ☐ NOT

## Example 4

Hypertension \_\_\_\_ High Blood Pressure

- ☐ AND
- ☐ OR
- ☐ NOT

## Example 5

Exercise \_\_\_\_ Physiotherapy

- ☐ AND
- ☐ OR
- ☐ NOT

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# Activity 2 – Build Your Search

Use the concepts below to create a search strategy.

## Clinical Question

In adults with stroke, does robot-assisted therapy improve upper-limb function?

## Patient

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**Intervention**

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**Synonyms**

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**Write Your Search**

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## Activity 3 – Complete the Search

Fill in the missing Boolean operators.

### Search 1

(Stroke \_\_\_\_ Cerebrovascular Accident)

(Robot-assisted Therapy \_\_\_\_ Robotics)

### Search 2

(Hypertension \_\_\_\_ High Blood Pressure)

(Low Salt Diet \_\_\_\_ Sodium Restriction)

### Search 3

(Parkinson Disease \_\_\_\_ Parkinsonism)

(Exercise Therapy \_\_\_\_ Physiotherapy)

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## Activity 4 – Which Search Is Better?

Tick the best search.

### Option A

Stroke

### Option B

Stroke AND Rehabilitation

### Option C

(Stroke OR Cerebrovascular Accident)

AND

(Rehabilitation OR Physiotherapy)

☐ Option A

☐ Option B

☐ Option C

**Why?**

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## Activity 5 – Fix the Search

The following search is incorrect.

**Stroke OR Rehabilitation**

Rewrite it.

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Another search.

**Stroke AND Cerebrovascular Accident**

Rewrite it.

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## Reflection

Which Boolean operator do you think will be used most often in PubMed?

- ☐ AND
- ☐ OR
- ☐ NOT

**Why?**

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## Self-Assessment

- ☐ I understand AND.
  - ☐ I understand OR.
  - ☐ I understand NOT.
  - ☐ I can combine keywords using Boolean operators.
  - ☐ I am ready to build a PubMed search.
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## Evidence Pearl

AND narrows your search, OR broadens it, and NOT excludes unwanted concepts. Thoughtful use of Boolean operators improves the relevance and completeness of your search results.

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## Faculty Notes (Instructor Version)

### Suggested Answers

## Activity 1

| Question                             | Answer                |
|--------------------------------------|-----------------------|
| Stroke ___ Rehabilitation            | AND                   |
| Stroke ___ Cerebrovascular Accident  | OR                    |
| Stroke ___ Hemorrhagic Stroke        | NOT (used cautiously) |
| Hypertension ___ High Blood Pressure | OR                    |
| Exercise ___ Physiotherapy           | OR                    |

## Activity 3 (Example)

(Stroke OR Cerebrovascular Accident)

AND

(Robot-assisted Therapy OR Robotics)

## Activity 4

**Correct Answer:** Option C

### Reason:

It combines synonyms with OR and combines different concepts with AND, producing a more comprehensive yet focused search.

## Teaching Tips

- Explain that OR is used within the same concept (e.g., synonyms), while AND connects different concepts (e.g., patient and intervention).
- Caution learners that NOT can unintentionally exclude relevant studies and should be used sparingly, especially by beginners.
- Encourage learners to use parentheses to group synonyms before combining concepts.

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## Search Builder Box

### My Search Strategy

(  
\_\_\_\_\_  
OR  
\_\_\_\_\_  
)  
AND  
(

---

OR

---

)

AND

(

---

OR

---

)

This blank template becomes the learner's first complete search strategy.

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## Carry Forward to Worksheet 2D

Learners will use this completed Boolean search directly in Worksheet 2D – PubMed Search Exercise, where they will enter it into PubMed, review the search results, and identify the most relevant article. This creates a seamless transition from search construction to real-world evidence retrieval.