

Session 2 (FIND & READ): Exercise sheet

Foundations of Clinical Research · Level 1 · Neudata · #ClearDataClearImpact · Week 2 · Saturday 7 November 2026 · online, 19:30–22:30

Name: _____

Department: _____

How to use this sheet. This sheet is sent by email before the session, as a Word file and as a PDF. Keep it open on your computer during the session and type your answers into the Word file (or print the PDF at home).

- Recap quiz on Session 1: on your own, in the online form linked in the chat (8 minutes, start of the session).
- Exercise 1 (Boolean search builder): **on your own**, for your own question, segment 2.1 (5 minutes).
- Exercise 2 (paraphrasing): at home.
- Exercise 3 (reading Paper 1's abstract): **on your own**, segment 2.3 (12 minutes). The clean abstract is linked in the chat.
- Exercise 4: **your own** Proposal builder 2 (35 minutes).

The answers are discussed in class, in the chat. There is no mark.

Recap quiz: Session 1 (individual, 8 minutes, in the online form)

1. Which course paper is a trial and which is a cohort: Paper 1 (Boulet 2024) or Paper 2 (Hyun 2023)? _____
2. "In adults with sepsis, is a positive fluid balance by day 3, vs not, linked to death by day 28?" P _____ E _____ C _____ O _____ T _____
3. Which FINER letter did our running example fail? _____
4. Which is an objective: "to understand fluid balance" or "to estimate the proportion fluid-positive on day 3"? _____
5. Write H0 for: "Does a restrictive protocol reduce fluid balance at day 5?"

The running example (for reference)

P: Population	Adults (18+) with septic shock in the ICU
I: Intervention	Restrictive fluid strategy
C: Comparison	Usual care (standard fluids)
O: Outcome	Death from any cause
T: Time	Within 28 days

Question: *In adults with septic shock in the ICU, does a restrictive fluid strategy, compared with usual care, reduce 28-day mortality?*

Exercise 1: Boolean search builder (individual, 5 minutes, segment 2.1)

Rules: join synonyms inside a block with **OR**. Join blocks with **AND**. Put each block in **brackets**. Write operators in CAPITALS. Use English search words.

Warm-up: which gives MORE hits? (circle)

- septic shock AND fluids OR septic shock OR fluids
- sepsis OR sepsis NOT neonatal

Build your search from your own PICO question (Session 1) and your synonym list. The comparison (C) is usually *not* searched.

Block	Concept	Synonyms (2–4). Mark possible MeSH terms with (M)
P		
I / E		
O		

My search string:

(_____ OR _____ OR _____) AND (_____ OR _____ OR _____) AND (_____ OR _____)

One filter I would add, and why: _____

Share your search. The trainer calls on two or three of you to read out one block; the class suggests a synonym to add. One synonym suggested for my search: _____

The search string from the live demo (copy it here to run at home):

```
("Shock, Septic"[Mesh] OR "septic shock"[tiab] OR sepsis[tiab])
AND ("Fluid Therapy"[Mesh] OR "fluid restrict*"[tiab] OR "restrictive fluid*"[tiab] OR
"conservative fluid*"[tiab])
AND ("Mortality"[Mesh] OR mortality[tiab] OR death[tiab])
```

Field tag / symbol	Meaning
[Mesh] or [mh]	MeSH term (includes narrower terms automatically)
[tiab]	word in the title or abstract
[pt]	publication type, e.g. randomized controlled trial[pt]
"..."	exact phrase
*	any ending (truncation): restrict* = restrict, restricted, restriction, restrictive

Exercise 2: Citing vs copying (paraphrase safely) (individual, at home, 10 minutes)

Method: read, close the paper, write from memory, check the facts, then cite.

Patchwriting (copying the sentence and swapping a few words) is plagiarism **even with a reference**.

Part A: Spot the problem. The source is the Results section of Paper 2's abstract (Hyun 2023):

"The positive fluid groups in both the D2 (HR, 2.13; 95% CI 1.48–3.06; $P < 0.001$) and D3 (HR, 1.56; 95% CI 1.10–2.22; $P = 0.012$) cohorts had significantly higher mortality rates than the negative fluid groups."

For each version, tick **OK** or **Problem**, and say why.

Version	OK	Problem	Why?
a) "The positive fluid groups in the D2 and D3 cohorts had significantly higher death rates than the negative fluid groups [2]."	☐	☐	
b) "In a matched registry cohort, a positive cumulative fluid balance on ICU days 2 and 3 was associated with higher 28-day mortality (hazard ratios 2.13 and 1.56) [2]."	☐	☐	
c) "Giving more fluid on days 2 and 3 doubles the risk of death [2]."	☐	☐	
d) "In a matched registry cohort, a positive cumulative fluid balance on ICU days 2 and 3 was associated with higher 28-day mortality." (no citation)	☐	☐	

Part B: Your turn. Paraphrase this sentence from Paper 1's abstract in your own words, with a citation:

"After 28 days, mortality and the numbers of days alive without life support were similar between groups."

My paraphrase: _____

Check: different structure? ☐ facts still correct? ☐ no stronger claim than the source? ☐ citation? ☐

Exercise 3: Read Paper 1's abstract (individual, 12 minutes, segment 2.3)

Use the **abstract only** of Paper 1: Boulet N, et al. *Crit Care* 2024;28:429 (in [Papers/](#)). 8 minutes reading alone, then 4 minutes typing your primary outcome and main result in the chat.

The 15-minute reading order (for later): title (30 s), abstract (3 min), figures and tables (4 min), methods (5 min), then discussion and limitations (2–3 min). Stop early if the paper does not answer your question.

Item	What the abstract says
Design (and blinding)	
P: who was included?	
I vs C: what was compared?	
Primary outcome (and when)	
Numbers: screened / randomised / analysed	
Main result: estimate with 95% CI and p	
Conclusion: one line	
Does the conclusion match the main result?	☐ yes ☐ no. Why?
Any spin (words stronger than the numbers)?	☐ yes ☐ no. Where?
Registration number	
Does this paper answer our running-example question (28-day mortality)?	☐ yes ☐ no. Why?

Fast finishers: read the **title and abstract** of Paper 2 (Hyun 2023). Which word in the title is stronger than the design allows? Which word does the abstract conclusion use instead?

Spin checklist: words to look for

Data say	Spin says
p = 0.42 for the primary outcome	"a non-significant trend"
primary outcome: no difference	headline = a positive secondary outcome
observational association	"impact", "effect", "reduces"
change within one group only	"patients improved"

Exercise 4: Proposal builder 2 (on your own, 35 minutes)

First the trainer searches live for the running example and you suggest terms and papers in the chat (10 minutes). Then you continue Part 1 of **your own** proposal in the **Research Proposal template** (Templates/Research_Proposal_Template.docx) and the **literature review worksheet**, building on

last week's question, aim and objectives. This sheet is your checklist. Anything unfinished is homework.

Time	Task	Done
0–10 min	Watch the trainer search and screen for the running example; suggest terms and papers in the chat	☐
10–30 min	1. Run your search string (Exercise 1) in PubMed; write the date, the filters and the number of hits	☐
	2. Screen titles and abstracts; pick 5 key papers ; save them to Zotero (<i>Send to → Citation manager</i> , then import)	☐
	3. Literature review worksheet : one row per paper	☐
	4. Problem statement : three short paragraphs (about 300 words): (a) what is known, (b) what is not known (the gap), (c) why it matters <i>here</i> (local data, if you have them)	☐
	5. Working title and keywords (see below)	☐
30–35 min	Two volunteers read their title and gap sentence aloud; everyone suggests one improvement in the chat	☐

Working title and keywords

Working title (10–16 words; population, comparison or exposure, and design visible; no abbreviations; no "impact" or "effect" for observational designs)	
Number of words	
Keywords (3–6; MeSH terms not already in the title)	1. _____ 2. _____ 3. _____ 4. _____

Example (feasible rewrite of the running example): "Restrictive versus usual fluids in adults with septic shock: a pilot randomised trial" (13 words). Keywords: Fluid Therapy; Water-Electrolyte Balance; Critical Care; Vasoconstrictor Agents.

Literature review worksheet: one row per paper

#	Study (first author, year, journal)	Design, size	Compared	Primary outcome: result	Key limitation	Why it matters for our question
1						
2						
3						
4						
5						

Search used for the references (paste the string, the database and the date):

Quality checks before you stop

- ☐ The problem statement ends with your question; the title names the same population and outcome as the question.
- ☐ At least one reference is a randomised trial or a systematic review, if one exists; you checked a trial registry for ongoing trials.
- ☐ References are saved in Zotero. No sentence is copied from a source.

Exit question (in the chat, or the 1-question form linked there; 2 minutes, before you leave)

1. Which gives MORE hits: `septic shock AND fluids` or `septic shock OR fluids`?
2. What was the primary outcome of Paper 1?

Why we ask: it is not homework and not marked. It shows us what is still unclear. The trainers read every answer before Session 3.

Homework before Session 3 (next Saturday)

- Finish your five key references, worksheet rows and problem statement, so that **your own** Proposal Part 1 is complete with a working title and keywords.
- Read one of your papers with the 15-minute routine.
- Read the **abstract** of Paper 2 (Hyun 2023, *Ann Intensive Care*, in [Course/Papers](#)) with the Exercise 3 grid.
- Exercise 2 (paraphrasing) if not done in class.
- **Optional:** look up Paper 1's registration (NCT04947904) on ClinicalTrials.gov.