Research Waste Alert Service: – Level 1 Cheat Sheet

Version 4

Review objective: The goal is to conduct a scoping review to identify articles discussing research waste in health and biomedical sciences, distinguishing them from other types of waste (e.g., medical waste, food waste, industrial waste).

Review questions:

1. What constitutes research waste in health and biomedical sciences, and how can it be distinguished from other forms of waste in the literature?

GitHub link: https://github.com/pvzhelnov/rw_alert_service
Project name: ***RW Alert Service – L1***

NOTES

- If you select Asserted_research_waste or Quoted_research_waste, the study will be INCLUDED for Level 2 screening.
- If you select any other waste category, the study will be EXCLUDED.
- If you select Not_sure_see_previous_step, the study will be INCLUDED for Level 2 screening.
- The screening system includes a simulated peer “pree” review process that helps validate categorization decisions, but this does not require manual input from screeners.

Question 1:	What kind of waste is discussed in this article?
RESPONSE	**Open Text**
Guidance notes	Read the title and abstract carefully. Identify and describe the type of waste being discussed. Look for key terms and context clues that indicate the nature of the waste.

Question 2:	Where does this kind of waste typically come from?
RESPONSE	**Open Text**
Guidance notes	Based on your general knowledge and the article context, identify where this kind of waste primarily originates in the real world: • Research settings (clinical trials, laboratories, systematic reviews, grant processes, publications) • Healthcare delivery (hospitals, clinics, surgical suites) • Industrial/commercial settings (factories, food production) • Agricultural settings (farms, crop production) • Biological/physiological processes

Question 3:	Does this article discuss waste in the research process itself?
RESPONSE	**Open Text**
Guidance notes	Reflect on whether the article addresses inefficiencies or problems in how research is conducted, reported, or used. Aspects of Research Waste (MINUS framework, Rosengaard et al, 2024; expanded): • Methodological (study design, study conduct, outcomes, analysis) • Invisible (unpublication, discontinuation, data inaccessibility, paywall) • Negligible (repetition, redundant) • Underreported (poor reporting, selective reporting) • Structural (management, collaboration, choice of subject, peer review, implementation) • Emerging (any other practices starting to be recognized as wasteful) • Summative (specific study called out as wasteful upon assessment) Ask yourself: Is this about improving research quality and efficiency or about managing physical materials and operations?

Question 4:	**What waste category best describes this article?**
RESPONSE	**Choose One: Asserted_research_waste | Quoted_research_waste | Food_waste | Hazardous_waste | Plastic_waste | Garbage_management | Industrial_waste | Wastewater | Medical_or_surgical_waste | Healthcare_personnel_time | Excess_requisition | Excess_use_of_animals | Pharmaceutical_waste | Muscle_wasting | Metabolic_waste | Crop_residue | Not_sure_see_previous_step**
Guidance notes	Select category when... • Asserted_research_waste – Authors explicitly say it's about research waste (terms like "research waste," "avoidable waste in research," "reducing waste in research"). • Quoted_research_waste – Article covers research waste concepts (redundant trials, poor methods, publication bias, selective reporting) but does not use the phrase "research waste." • Food_waste – Article is about food waste in any setting. • Hazardous_waste – Article is about dangerous materials (chemicals, toxins, radioactive substances) needing special disposal. • Plastic_waste – Article is about plastic waste or pollution. • Garbage_management – Article is about waste collection, disposal, or management systems. • Industrial_waste – Article is about waste from manufacturing or industrial processes. • Wastewater – Article is about contaminated water or water treatment. • Medical_or_surgical_waste – Article is about physical clinical waste (sharps, contaminated materials, surgical waste), not research waste. • Healthcare_personnel_time – Article is about inefficient clinician time use in healthcare delivery. • Excess_requisition – Article is about over-ordering or unnecessary supply procurement in clinical/operational settings. • Excess_use_of_animals – Article is about unnecessary animal use in research or animal welfare issues. • Pharmaceutical_waste – Article is about unused, expired, or improperly disposed medications. • Muscle_wasting – Article is about medical muscle loss (cachexia, sarcopenia, atrophy). • Metabolic_waste – Article is about biological byproducts of metabolism (urea, CO_2, etc.). • Crop_residue – Article is about agricultural waste from plants. • Not_sure_see_previous_step – Category unclear; rely on reflection from Question 3.

Credits: Cheat sheet template

Source: Additional file 1 distributed via FigShare <https://figshare.com/articles/journal_contribution/Additional_file_1_of_Interventions_on_gender_equity_in_the_workplace_a_scoping_review/25556501?file=45489470>, MD5 checksum: 50092e26fc71af3cd2403e51f05cfa2e

Citation: Tricco AC, Parker A, Khan PA, Nincic V, Robson R, MacDonald H, Warren R, Cleary O, Zibrowski E, Baxter N, Burns KEA, Coyle D, Ndjaboue R, Clark JP, Langlois EV, Ahmed SB, Witteman HO, Graham ID, El-Adhami W, Skidmore B, Légaré F, Curran J, Hawker G, Watt J, Bourgeault IL, Leigh JP, Lawford K, Aiken A, McCabe C, Shepperd S, Pattani R, Leon N, Lundine J, Adisso ÉL, Ono S, Rabeneck L, Straus SE. Interventions on gender equity in the workplace: a scoping review. BMC Med. 2024 Apr 5;22(1):149. doi: 10.1186/s12916-024-03346-7. PMID: 38581003; PMCID: PMC10998304.