

Peer Review

Review of: "Artificial Intelligence in Experimental Surgery: Ethical Breakthroughs and Technological Innovations within In Silico Models"

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This research presents a pioneering model that can be used to develop alternative policies for the use of animals in research. It represents a significant contribution to the fields of biomedicine and artificial intelligence. It addresses a very recent and emerging topic (AI in experimental surgery) with an excellent integration of technology and ethics. The concept is innovative and in line with current global trends. The use of multiple and comprehensive databases: PubMed, Embase, Scopus, Web of Science, SciELO, and Google Scholar provides very high comprehensiveness and enhances the reliability of the results.

The logical sequence between sections is excellent. The connection between the introduction, results, and conclusion is clear. A short introduction section to clarify the research problem and its historical context would be beneficial. The in-depth analysis covers various surgical specialties. It integrates technical findings with ethical and regulatory dimensions. The accompanying Table 1 is excellent in terms of comprehensiveness and practicality. It would be preferable to mention the number of primary studies retrieved and selected (in the Results section later) and to include a PRISMA flowchart. The name of the analytical instrument used should be mentioned, or it should be indicated that the analysis was performed manually. Some paragraphs are quite long and could be divided into subparagraphs with two subheadings. The references are well-numbered and varied. It is advisable to ensure they are updated to the most recent three years (2022–2025) to highlight the recency of the evidence.

Best of luck to the researchers.

Declarations

Potential competing interests: No potential competing interests to declare.