REPORTING QUALITY OF SYSTEMATIC REVIEWS EVALUATING SURGICAL INTERVENTIONS ACCORDING TO THE PRISMA 2020 CHECKLIST: A METHODOLOGICAL SURVEY

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BACKGROUND

Systematic reviews (SRs) and meta-analyses (MAs) play a crucial role in guiding clinical practice and decision-making. The PRISMA 2020 statement is a 42-item checklist that serves as a guideline for reporting SRs and MAs.[1] Adherence to these guidelines in studies pertaining to surgical interventions has not been studied.

The aim of this study is to evaluate the compliance with methodological reporting in surgical SRs and MAs as per the PRISMA checklist.

RESEARCH QUESTIONS

Primary: Are SRs and MAs evaluating surgical interventions reported as per the PRISMA guidelines?

Secondary: Are there publication factors, such as journal impact factor, journal endorsement of PRISMA, industry funding, open access, PROSPERO registration prior to publication, and a published study protocol, that are correlated with more complete reporting?

P	*SR + MA of surgical interventions*
I	*PRISMA 2020 statement*
C	*N/A*
O	*Proportion of PRISMA items reported*

References:
1. Page et al. BMJ, 2021.
2. Samaan et al. J Multidiscip Healthc. 2013.

METHODS

MEDLINE and EMBASE were systematically searched.

Inclusion criteria:

1. SRs and MAs evaluating a surgical intervention (studies comparing different techniques or operations, or comparing an intervention to non-operative or no intervention).
   - ‣Surgical intervention = procedures performed on patients ≥18y, in an operating room, and under general or regional anesthesia.
2. Published in January 1, 2022 to December 31, 2023.
   - ‣ Studies published recently are more likely to be associated with increased uptake of PRISMA reporting.[2]

Exclusion criteria:

1. RCTs, cohort studies, case studies, case series, surveys, letters, editorials, commentaries.
2. SRs and MAs not evaluating a surgical intervention as defined above.
3. Studies not published in the time periods defined above.

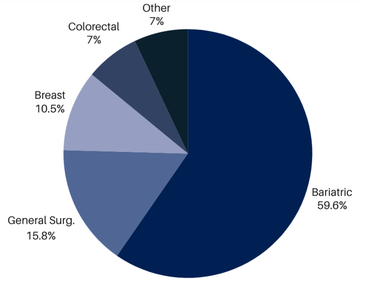
The association between factors and completeness of reporting was assessed with Poisson and logistic regressions.

RESULTS

57 studies met the inclusion criteria.



Mean number of PRISMA items reported = 31.42 (74.8%).



Types of surgery in included studies.



Studies with a published protocol were more likely to report a higher number of PRISMA items (IRR 1.17, 95% CI1.02-1.33, p=0.023).

Open access publications were associated fewer reported PRISMA items (IRR 0.89, 95% CI 0.82-0.97, p=0.009).

CONCLUSION

Adherence to the PRISMA 2020 checklist for SRs and MAs evaluating surgical interventions is moderate, with a mean of 75% of items being adequately reported. Publishing a protocol may enhance reporting completeness, indicating a possible avenue for future improvement in adherence.

Future research should explore additional strategies to improve reporting standards in surgical research. This study aligns with broader efforts to enhance transparency, replicability, and integrity in research in surgery.