

Compliance of Systematic Reviews in Ophthalmology with the PRISMA Statement

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Abstract : Background/Aims: Systematic reviews and meta-analysis are becoming increasingly important way of summarizing research evidence. Researches in ophthalmology may represent further challenges, due to their potential complexity in study design. The aim of our study was to determine the reporting quality of systematic reviews and meta-analysis in ophthalmology with the PRISMA statement, by assessing the articles published between 2010 and 2015 from five major journals with the highest impact factor. Methods: MEDLINE and EMBASE were used to search systematic reviews published between January 2010 and December 2015, in 5 major ophthalmology journals: Progress in Retinal and Eye Research, Ophthalmology, Archives of Ophthalmology, American Journal of Ophthalmology, Journal of the American Optometric Association. Screening, identification, and scoring of articles were performed independently by two teams, followed by statistical analysis including the median, range, and 95% CIs. Results: 115 articles were involved. The median PRISMA score was 15 of 27 items (56%), with a range of 5-26 (19-96%) and 95% CI 13.9-16.1 (51-60%). Compliance was highest in items related to the description of rationale (item 3,100%) and inclusion of a structured summary in the abstract (item 2, 90%), while poorest in indication of review protocol and registration (item 5, 9%), specification of risk of bias affecting the cumulative evidence (item 15, 24%) and description of clear objectives in introduction (item 4, 26%). Conclusion: The reporting quality of systematic reviews and meta-analysis in ophthalmology need significant improvement. While the use of PRISMA criteria as a guideline before journal submission is recommended, additional research identifying potential barriers may be required to improve the compliance to the PRISMA guidelines.

Keywords : systematic reviews, meta-analysis, research methodology, reporting quality, PRISMA, ophthalmology

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