

## A Guide for Systematic Reviews: PRISMA

Letter to the Editor

Ayşe Adin Selçuk 

Department of Otorhinolaryngology, Health Sciences University, Derince Training and Research Hospital, Kocaeli, Turkey

Dear Editor,

In Turkish Otorhinolaryngology publications reviews are often written in the form of an account, and systematic reviews and meta analyses are rarely performed (1-4). A systematic approach to a review, however, will minimize bias and maximize its contribution to science. Including meta-analysis in a review will carry the publication to the highest level of evidence. This will also significantly increase the citability of the report.

As the Turkish Archives of Otorhinolaryngology is the scientific open access journal of our society, this scientific letter aims to reach our colleagues who plan on writing reviews in the field of otorhinolaryngology with the use of PRISMA guidelines for the purpose of standardizing systematic review writing.

According to the common opinion, a review type article is the interpretation, synthesis and assessment of the scientific reports and studies printed in scientific publications by authors experienced in the area (5). Reviews written with an analogous approach cannot go beyond an account of what has been already done: They cover a wide range of topics within a given subject; may be useful in understanding new concepts, but are rarely comprehensive; rarely give details about the methods; are likely to be written in line with the opinions of the author; quality differences between the studies are rarely considered; and as a result, can be misinterpreted and lead to inadvertent bias.

To avoid these issues in systematic review writing, the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) group, which mainly consists of Cochrane authors, has developed the PRISMA guidelines in 2009 (6). A systematic review will extensively scan all reports published on the subject to find the answers to a clearly defined research question, and to that end will use various inclusion and exclusion criteria to identify the reports to be included in the review, and then synthesize the findings. Using statistical methods for the interpretation of the results implies a systematic review containing meta-analysis (6).

The PRISMA guidelines consist of a four-phase flow diagram and a 27-item checklist. The flow diagram describes the identification, screening, eligibility and inclusion criteria of the reports that fall under the scope of a review. The checklist includes a 27-item recommendation list on topics such as title, abstract, introduction, methods, results, discussion and financing. With this flow diagram and checklist, PRISMA items serve as a guide for authors, reviewers and editors.

PRISMA extensions can be reached at their website: [www.prisma-statement.org](http://www.prisma-statement.org) (7). The Turkish translations of the flow diagram and the checklist can also be found here. The website also includes a scientific report authored by the PRISMA group that gives examples to a systematic review in line with the guidelines, as well as detailed explanations and descriptions (8). All content related to the PRISMA guidelines are open access for the purposes of disseminating its utilization.

**ORCID ID of the author:**  
A.A.S. 0000-0002-3267-4638.

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**Corresponding Author:**  
Ayşe Adin Selçuk; [sadin27@yahoo.com](mailto:sadin27@yahoo.com)

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Full compliance with the checklist items will facilitate clarity and transparency in reporting; and thereby enable a structured report that well-defines the study question, clearly states its title and objectives, benefits from a comprehensive strategy for identifying all relevant study reports, clearly and justifiably indicates inclusion and exclusion criteria, critically and accurately prioritizes the reviewed study reports, provides a clear analysis of the eligible study reports based on qualitative and—where applicable in relation to the data—quantitative (meta-analysis) content.

As stated in the ‘Instructions for Authors’ page of your journal, the PRISMA items are the recommended reporting method to be adopted in order to avoid the basic mistakes in systematic review and meta-analysis reports. I believe that wider adoption of these guidelines in our country will significantly contribute to the otorhinolaryngology reports published in Turkey.

**Peer-review:** Externally peer-reviewed.

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