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Editorial

# Systematic Review and its Role in Clinical Decision Making

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Systematic reviews as secondary research studies are used as the gold standard to help healthcare professionals and healthcare policy makers in decision making.[1] Clinical decisions need to be based on high quality, up-to-date research evidence. Systematic reviews start with well-defined research questions and explicit and reproducible search strategies in order to critically appraise and integrate results of primary research studies.[2,3]

To perform a systematic review, 6 key steps should be performed successively: (1) clarifying the aims and methods in a protocol, (2) finding relevant research, 3) collecting data, (4) assessing the study's quality, (5) synthesizing the evidence, and (6) interpreting the findings. The systematic review process also includes 4 phases: (1) planning a systematic review, (2) writing and publishing protocol, (3) completing the review, and (4) publishing, disseminating, and updating the review.[2]

For publication, a systematic review or meta-analysis should comply with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) checklist,[1,2,4] which includes 27 items. These items are categorized in 7 sections: title (1 item), abstract (1 item), introduction (2 items), methods (12 items), results (7 items), discussion (3 items), and funding (1 item).[3] An updated version of PRISMA has been developed, i.e. PRISMA-P, that has 17 items to improve the quality of systematic reviews with fewer items.[5,6] A positive correlation has been shown to exist between PRISMA score and average citations per year; in other words, systematic reviews with high PRISMA scores are more likely to be cited by other researchers.[3]

Unfortunately, it has been reported that different methods for systematic review reporting have recently led to a number of publications demonstrating a lack of compliance with PRISMA.[4,5,7,8]

Systematic reviews and meta-analyses play an important role in evidence-based medicine (EBM),[7,9] and a large increase in systematic review studies has occurred.[1] However, to prevent impaired clinical decision-making, it is highly recommended that the 6 steps of systematic review completion be followed with accuracy, the 4 phases of a systematic review be accomplished rigorously, and finally, a greater adherence to PRISMA standards be maintained.

## Conflict of Interest Disclosures

The author declares that he has no conflicts of interest.

## Ethical Approval

Not applicable.

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