



Establishing the Guidelines for Recommendation Reporting (G-RECO): a study protocol for developing reporting guidelines for disease prevention recommendations

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Objectives: The objective of this study was to develop the Guidelines for Recommendation Reporting (G-RECO) for use in the *Public Health Weekly Report* (PHWR) in Korea, aiming to improve the standardization, scientific accuracy, and practical applicability of recommendation reports in clinical practice guidelines.

Methods: The methodology of this study aligned with the EQUATOR Network standards. A multidisciplinary research committee was formed, comprising experts in various relevant fields. The development process included a comprehensive literature review, analysis of existing guidelines, and formulation of a structured G-RECO framework with 21 key items. This was supplemented with Explanation & Elaboration documents for each item. The draft underwent rigorous revisions and evaluations by both internal and external experts.

Results: By November 2023, significant progress had been made in developing a detailed G-RECO checklist and accompanying E&E documents. These tools are designed to guide authors in clear and consistent reporting of recommendation reports. The team is poised to finalize and publish the checklist and E&E documents by December 2024.

Conclusion: The G-RECO guidelines represent a significant advancement in the formalization and standardization of recommendation reports for the PHWR. They are expected to improve the quality of research and publications in clinical practice guidelines, contributing to the evolution of the field and enriching public health discourse. The guidelines, with their comprehensive nature and user-friendly design, will become an invaluable resource for researchers, editors, and peer reviewers in public health and epidemiology.

Introduction

Clinical practice guidelines are recommendations systematically developed to assist physicians and patients in making decisions in specific clinical situations. These guidelines not only

provide systematic directions for improving the quality of medical care, but are also a strategy for providing high-quality information to patients. They play a significant role in improving patient satisfaction and treatment efficacy by aiding in decision-making, which can influence appropriate patient treatment.

The Korea Disease Control and Prevention Agency (KDCA) develops numerous clinical practice guidelines. Unlike general clinical practice guidelines, the KDCA's guidelines focus on disease prevention, such as screening and vaccination, and also address certain diseases, such as sexually transmitted infections and tuberculosis.

Currently, there are two reporting guidelines for clinical practice guidelines: RIGHT (Reporting Items for practice Guidelines in HealThcare) [1] and AGREE (Appraisal of Guidelines for Research & Evaluation) [2]. Both are widely used and have similar items, but they also complement each other. Notably, RIGHT includes a public version that can be utilized [3]. These reporting guidelines can be directly applied when reporting on health and disease policy in a weekly report. However, since KDCA's clinical practice guidelines primarily focus on disease prevention and some infectious diseases, it is advisable to select the most relevant items from these guidelines and report accordingly.

In this context, we aimed to develop the Guidelines for Recommendation Reporting (G-RECO) for publications in *Public Health Weekly Report* (PHWR) in Korea. This document is a study protocol that outlines the process of developing G-RECO.

Methods

The methodology employed in this project adheres to the standards set by the Enhancing the Quality and Transparency of Health Research (EQUATOR) Network [4]. This approach encompasses a multi-faceted strategy, involving a varied team of specialists, to formulate robust reporting guidelines.

Formation and role of the research committee

The multidisciplinary research committee is instrumental in the development of reporting guidelines. This committee is composed of experts in various fields: specialists in preventive medicine who focus on strategies for disease prevention, epidemiologists analyzing disease patterns and trends, methodologists dedicated to ensuring the scientific rigor of research methodologies and data analysis, family medicine practitioners offering insights on effective community health management, public health professionals who ensure the alignment of the guidelines with broader health policies, and journal editors who contribute to the clarity and practicability of the guidelines. Through collaborative efforts in workshops and team meetings, this diverse group of experts has synthesized their collective expertise to create thorough, scientifically robust, and practically relevant reporting guidelines.

Literature review: *Public Health Weekly Report*

Our team conducted a thorough review of PHWR manuscripts in Korea (<https://www.phwr.org/>), specifically focusing on recommendation reports. The PHWR is the official academic journal of the KDCA. Its primary objective is to promptly and accurately provide evidence-based scientific information to the public and health professionals both domestically and internationally. This information is based on the KDCA's research, surveillance, and investigation findings. The journal covers a range of topics, including infectious diseases, chronic diseases, environmentally

induced illnesses, injuries and poisoning, and health promotion. It features research papers, outbreak reports, surveillance updates, field reports, reviews and forecasts, and policy reports. Its publications are intended for a wide range of audiences, including healthcare professionals, policymakers, and sometimes the general public, offering timely insights into ongoing public health issues and trends.

The manuscripts were carefully examined to identify unique features, research methods, and key components crucial to report recommendations. Following this extensive review, a joint meeting with all team members was held. The aim was to merge our findings, discuss the differences and similarities in reporting styles among each report, and find any gaps in the literature. The insights from these discussions were vital in forming the new reporting guidelines, ensuring they meet current needs and advance the standards of recommendation reporting in health research.

Reviewing existing reporting guidelines

This stage involved closely scrutinizing and categorizing existing reporting guidelines, including the RIGHT [1] and the AGREE statement. [2] The main goal was to assess the suitability and effectiveness of these guidelines for clinical practice guidelines in the PHWR. This included examining each guideline's structure, key components, and overall approach to report recommendation. Both the RIGHT and the AGREE aim to improve the transparency and quality of guideline reporting, but they focus on slightly different aspects of guideline development and evaluation. The AGREE emphasizes methodological quality assessment, while the RIGHT checklist is considerably shorter and could be easier to use, with similar results [5].

Developing new reporting guidelines

The formulation of the G-RECO guidelines involved a structured procedure orchestrated by our panel of experts. The preliminary version stemmed from comprehensive insights gathered through an extensive review of relevant literature and critical analysis of existing reporting guidelines, ensuring that G-RECO is in line with current practices and integrates the latest field advancements. The structure of G-RECO is segmented into various key sections (including title, abstract, summary, introduction, methodology, results, discussion, and other pertinent information), with each section requiring specific details to ensure thorough reporting. Altogether, these sections encompass 21 key items.

For each item of the guideline, we incorporated Explanation & Elaboration (E&E) documents, providing clarity on the rationale and context, thereby increasing the practicality of the guidelines. During this phase, the committee played an essential role by structurally formulating each guideline item. These items are grounded in evidence, deriving from the collective expertise of the committee, critical review of the literature, and contemporary guidelines. This collaborative process ensured comprehensive coverage of all critical elements of recommendation reporting, with an emphasis on scientific precision and practical utility.

The draft guidelines and E&E documents underwent successive revisions, where they were applied to select literature to evaluate their practicality, with adjustments made based on the feedback received. The drafts were reviewed by both our internal team and external experts proficient in recommendation reporting, employing a scoring method for a detailed assessment of each component of the guidelines and the E&E documents.

Finally, we compiled the final iteration of the guidelines along with an extensive manual. The checklist will serve as a succinct guide for researchers, while the manual provides in-depth

explanations and illustrations for diverse recommendation scenarios. This systematic and evidence-grounded approach ensures that the final guidelines are comprehensive, current, and pragmatically applicable.

Ongoing updates and revisions

The G-RECO guidelines are planned to undergo systematic, ongoing updates. This continuous revision process is essential to maintain their relevance and effectiveness in response to evolving challenges, scientific progress, and emerging best practices within the field. To guarantee that these updates are both timely and impactful, the G-RECO guidelines will undergo regular evaluations, ensuring that they reflect the most current advancements in this domain. A crucial aspect of this updating mechanism involves collecting and incorporating feedback from a diverse array of stakeholders, including researchers, public health professionals, epidemiologists, and policymakers. Their insights will be crucial in pinpointing areas for improvement, thereby ensuring that the guidelines remain attuned to the needs and expectations of their users.

Results

By November 2023, the research team has made considerable advancements in formulating detailed reporting guidelines for recommendation reports. Progressing methodically, the team has been meticulously crafting a thorough checklist and E&E documents. These tools are intended to guide authors in presenting recommendation reports with both clarity and consistency. The team is on track to finalize and release both the checklist and the E&E documents by December 2024.

Discussion

The introduction of the G-RECO guidelines represents a significant advancement in the formalization of clinical practice guidelines and recommendations for the PHWR. Reporting guidelines, identified as checklists, flow diagrams, or structured texts, serve as comprehensive aids for authors in documenting specific research types [6]. These instruments are invaluable to a range of stakeholders, including peer reviewers, authors, and academic journals, ensuring accurate and complete research documentation. The G-RECO guidelines are particularly designed to assist researchers in effectively communicating the strengths and limitations of their findings, thereby enhancing their interpretation and practical application.

Moreover, the G-RECO framework is a vital tool for editorial teams and peer reviewers. It provides a systematic approach for assessing the validity and relevance of research submissions, promoting high standards of scientific accuracy and clarity in publications related to recommendations. This is especially crucial in contexts where the accuracy and reliability of health-related information are paramount.

The G-RECO guidelines are further augmented by the inclusion of detailed explanations and examples for each checklist item, as elaborated in the appendix. This method increases the comprehensibility and practicality of the guidelines, offering concrete guidance for implementation. The provision of specific examples makes the guidelines more accessible and user-friendly, reducing potential misinterpretations or errors during manuscript preparation.

In the future, it is expected that the broad implementation of G-RECO guidelines will significantly improve the standard of research for clinical practice guidelines and

recommendations. As familiarity with these guidelines grows within the research community, an improvement in the quality of publications related to recommendations is foreseen, which will likely have a substantial impact on advancing the field and enriching discussions in public health.

Conclusions

Our team is committed to developing the G-RECO guidelines to improve the standardization of recommendation reports for the PHWR, providing a framework that bolsters the scientific precision, clarity, and practical relevance of research in this area. These guidelines, by offering a systematic method for manuscript development and assessment, not only promote increased clarity and uniformity in research documentation, but also contribute to elevating the caliber of publications within the realm of clinical practice guidelines. G-RECO's comprehensive design, encompassing a detailed checklist and illustrative examples, positions it as an invaluable tool for researchers, editors, and peer reviewers. This initiative is key in raising the quality of clinical practice guidelines and thus plays a significant role in enriching the wider conversation in public health and epidemiology.

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Conflict of interest

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Supplementary materials

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References

1. Chen Y, Yang K, Marušić A, Qaseem A, Meerpohl JJ, Flottorp S, et al. A reporting tool for practice guidelines in health care: the RIGHT statement. *Ann Intern Med* 2017;166(2):128-132.
<https://doi.org/10.7326/m16-1565>
2. Brouwers MC, Kerkvliet K, Spithoff K. The AGREE Reporting Checklist: a tool to improve reporting of clinical practice guidelines. *BMJ* 2016;352:i1152.
<https://doi.org/10.1136/bmj.i1152>
3. Wang X, Chen Y, Akl EA, Tokalić R, Marušić A, Qaseem A, et al. The reporting checklist for public versions of guidelines: RIGHT-PVG. *Implement Sci* 2021;16(1):10.
<https://doi.org/10.1186/s13012-020-01066-z>
4. The EQUATOR Network. How to develop a reporting guideline [Internet]. Oxford (UK): The EQUATOR Network; c2018 [cited 2024 May 24]. Available from: <https://www.equator-network.org/toolkits/developing-a-reporting-guideline/>
5. Tokalić R, Viđak M, Buljan I, Marušić A. Comparison of RIGHT and AGREE reporting checklists for healthcare practice guidelines. *Cochrane Database Syst Rev* 2018;(9 Suppl 1):188-189.
<https://doi.org/10.1002/14651858.CD201801>
6. Kim SY. Reporting guidelines. *Korean J Fam Med* 2009;30(1):62.
<https://doi.org/10.4082/kjfm.2009.30.1.62>