

Executive Summary (영문)

Collaboration Research for development of Trustworthy Clinical Practice Guidelines and Evaluation of Implementation

Miyoung Choi¹, Nam-Soon Kim², Youjin Jung¹, Su Jung Lee³, Soo Kyung Son¹, Da Hyun Lyu¹

¹ National Evidence-based Healthcare Collaborating Agency

² Korean Institute for Health and Social Affairs

³ Korean University College of Nursing

☐ **Background**

I. Current Status related to Clinical Practice Guideline Development

In connection with the demand that would like to accept the best scientific and objective evidence to clinical practice, the interests in development and implementation of clinical practice guideline are getting increased. In the future, the domestic clinical practice guidelines will also increase the concern for satisfying the condition of 'trustworthy clinical practice guideline' in qualitative ways. Thanks to public aspects of National Evidence-based Healthcare Collaborating Agency (NECA) and study results to which evidence-based methodology accumulated so far are applied, requests for consulting or collaboration tend to increase. Therefore, it is now necessary to prepare measures for ways to support with specific methodology.

II. Current Status related to Clinical Practice Guideline Implementation

The evidence generated in a clinical field should be applied to the field and generate new evidence. However, there are realistic, various barriers in proliferation and execution of clinical practice guidelines, and it is not easy to apply a clinical practice guideline to have changes in clinical practice.

Therefore, there needs more detailed investigation to see which parts in domestic situation can be barriers of implementation.

☐ **Objective**

This study will build a task cooperation model with specialized academic societies and related organizations to increase clinical practice guidelines with high trustworthiness, and ultimately contribute to increase the quality of patient treatment through intensifying methodology studies related to clinical application of clinical practice guidelines and implementability evaluation of domestic clinical practice guidelines.

- 1) Establishment of concept of cooperation process of trustworthy clinical practice guidelines through structured literature review and case study
- 2) Actualization of individual cooperative activity methods and preparation of examples
- 3) Evaluation of implementability of clinical practice guidelines: understanding internal and external barriers

☐ **Methods**

I. Clinical Practice Guideline Development Cooperation Protocol Development

1. Structured Literature Review

To answer research problem ‘What are types in which cooperations related to evidence review(or systematic review) in consultation development?’, key questions of 1) What are priority considerations in developing guidelines? and 2) What are types of cooperation related to evidence review(or systematic review) in developing guidelines? to perform the structured literature review.

2. Clinical Practice Guideline Development Cooperation Case Experts’ Individual In-depth Interview and Consultation

To identify the importance of evidence review and cooperation types in process of developing clinical practice guidelines and derive a model for cooperation development, in-depth interview or written consultation were conducted in experts with experience of development of clinical treatment guidelines through cooperation of clinical and methodological experts.

II. Evaluation of Implementability of Clinical Practice Guideline

1. Evaluation of Internal Implementability of Clinical Practice Guideline and Barriers

(1) Review of Korean Translation and Implementability of Guideline Implementability Appraisal (GLIA) ver. 2.0

Version 2.0 of GLIA which is an instrument to evaluate internal implementability and barriers of clinical practice guidelines was translated into Korean. In the translation process, after completing the first draft of translation following English-Korean translation and Korea-English backward translation, and the final translation was completed after going through review of external experts twice. The consent degree on the consistency of meaning communication of the translated contents and domestic implementability were evaluated by the review of external experts.

(2) Demonstrative Evaluation of Domestic Guideline Using Translation Instrument of GLIA ver.2.0

After an independent evaluation of 'Guideline to Use of Antibiotics in Patients with Abdominal Trauma' of the Korean Society of Acute Care Surgery which is under development in Korea using the translated instrument, the items with inconsistent comments were settled.

2. Survey to Identify External Barriers of Clinical Practice Guideline Implementation

The survey was attempted to identify external barriers expected in the

domestic development clinical practice guidelines applied by GLIA evaluation. The survey was conducted in about 60 members of the Korean Society of Acute Care Surgery who are the users of the 'Guideline to Use of Antibiotics in Patients with Abdominal Trauma'.

□ Results

- Building a task cooperation model of CPG development
- Korean Translation and Demonstrative Evaluation of Implementability of Guideline Implementability Appraisal (GLIA) ver. 2.0
- Survey to Identify External Barriers of Clinical Practice Guideline Implementation

I. Development of Clinical Practice Guideline Development Cooperation Protocol

1. Structured Literature Review and Investigation of Domestic Status

A total of 13 pieces of literature were selected for structured literature review including 4 domestic articles and 9 overseas articles. To identify the form of cooperation related to evidence review in development of clinical practice guidelines, the literature was divided into (1) the subject of guideline development, (2) inclusion of experts related to evidence review in composition of guideline development group, (3) the subject conducting evidence review, and (4) the scope of evidence review and what suggested by each article was identified.

2. Clinical Practice Guideline Development Cooperation Case Expert's Individual In-depth Interview and Consultation Results

To suggest support cooperation system related to evidence review in development of clinical practice guidelines, it was attempted to collect various opinions of clinical practice guideline developers in the Society

comprehensively. The interview contents were divided into difficulties related to guideline development and implementation experiences and opinions about cooperative activities with National Evidence-based Healthcare Collaborating Agency.

When analyzing the interview findings, in the suggestions for clinical practice guideline support and cooperation system, it was integrated into 32 subcategories from a total of 42 significant statements and descriptions, focusing on the 4 subjects. Based on them, it was structured with 10 categories.

3. Development Cooperation Model and Cooperation Protocol(Draft)

In this study, advanced research, overseas case study, structured literature review, and experts' in-depth interview results were combined to suggest development cooperation model and protocol for division of task. In development of clinical practice guideline, the roles of National Evidence-based Healthcare Collaborating Agency were defined as 1) experts of evidence evaluation and 2) coordinator/moderator in cooperative business part and 1) methodology study/training and 2) expert network building, etc. in competence enhancement part. Regarding this, the types of development cooperation of clinical practice guideline were suggested by roughly dividing into 1) joint study with the Society as an expert team of methodology or 2) consulting role for methodology.

In addition, a role flow chart was presented according to development method of clinical practice guideline (de novo development or adaptation), and cooperation protocol(draft) according to development plan and schedule was suggested.

II. The Evaluation of Implementability of Clinical Practice Guideline

1. GLIA ver.2.0 Instrument Translation, Implementability Review and Demonstrative Evaluation for Internal Implementability of Clinical Practice Guideline

The domestic applicability of GLIA ver.2.0 instrument translated into Korean was reviewed by external expert consultation. In the evaluation, utility item showed $5.75(\pm 0.96)$ on average which was the highest score. In short-answer questions, despite the advantage of the instrument that it can evaluate specifically, there was an opinion that practical applicability judgment would be difficult since it seemed there would be much information that is not in domestic guidelines.

2. Understanding External Barriers of Implementation through Survey in Users of Clinical Practice Guideline

When identifying general barriers of implementation of clinical practice guideline, 'does not receive the related compensation or incentive although the guideline is applied' registered $6.1(\pm 1.3)$, the highest score. With descriptive answer results, it was found that problems related to insurance fee or cutback were felt as the major obstructive factors of the implementation of guideline.

Also, in terms of the answer to expected barriers when implementing the development recommendations of the Korean Society of Acute Care Surgery, it was confirmed that environment aspects were largely expected as barriers including 'I think that resources(manpower time, system, etc.) will be needed(4.8 ± 1.6)', 'I think there will be difficulties in cooperating with other departments(4.5 ± 1.7)', etc.

☐ Conclusions

In this study, specific cooperation roles, flow chart by development method, and the cooperation protocol draft were first derived through multilateral techniques including the structured literature review, case review, qualitative interview, etc. In addition, it is suggested that internal and external competence enhancement through preparation of training programs, and systematic support systems by building an expert network are needed.

In the aspect of evaluation of implementability, internal and external

barriers were evaluated by cooperating with academic societies that recently developed the recommendation for guideline for evaluation of implementability, and a monitoring index was suggested for actual implementation. Despite its utility of the contents, because the internal barrier evaluation instrument was considered to have difficulty in availability in use, it is necessary to develop a domestic instrument in the future. Also, when considering implementation situations by academic society and by guideline, the implementability evaluation study should be more expanded and carried out.

□ Acknowledgement

This Research was supported by National Evidence-based Healthcare Collaborating Agency(NECA) funded by the Ministry of Health and welfare(grant number NH15-001).

Key word

clinical practice guideline (CPG), evidence assessment, cooperation protocol, implementation, barrier, GuideLine Implementability Appraisal (GLIA), monitoring index