

Integration and Systematization of Clinical Evidence for Salt Intake by Utilizing Artificial Intelligence

Tomohide Yamada^{1,2)}, Nobuhiro Shojima²⁾, Chia-lin Lee³⁾, Hisashi Noma⁴⁾, Toshimasa Yamauchi²⁾

¹⁾King's College London, London, UK, ²⁾The University of Tokyo, Tokyo, Japan, ³⁾Taichung Veterans Hospital, Taichung, Taiwan, ⁴⁾Institute of Mathematical Statistics, Tokyo, Japan

Summary

【Background】Evidence-based medicine (EBM) involves determining treatment that matches the needs of each patient by integrating the best and latest available "scientific evidence" and "clinical skills". Systematic review and meta-analysis refers to the process of searching databases and performing statistical analysis to integrate the results of multiple independent studies conducted in the past. These results obtained provide the highest quality evidence, which has become the foundation of various clinical guidelines. The objectives of this project are to reduce the time required to perform a systematic review by employing artificial intelligence (AI) and to improve the precision of the method.

We aimed to identify particular people those who have benefited from salt intake at high risk of 5-year mortality by Artificial Intelligence. This approach takes into account the role played by differences in genetics, epigenetics, the microbiome and other environmental factors including but not limited to other nutrients, environmental toxicants, pharmaceuticals, disease status, and physical activity.

【Methods】The objectives and planned outcomes of this project are to reduce the time required to perform a systematic review by employing artificial intelligence (AI) and to improve the precision of the method.

【Results】By using AI software, the aim is to make comprehensive searches of medical articles for reviews 10 times faster compared to the current speed.

【Conclusion】The results of this study could provide significant benefit by facilitating the acquisition of new evidence for clinical guidelines in all disease fields as well as salt intake.

Key words: Artificial intelligence, Systematic Review, Life-related diseases.