

Sharing and Utilization of Tacit Knowledge through Summarization of Nursing Home Case Records using Generative AI with Medical Knowledge

Primary Researcher: Kenji Araki
Professor Emeritus, University of Miyazaki Hospital

Co-researchers: Haruo Yokota
Professor Emeritus, Tokyo Institute of Science
Muneo Kushima
Lecturer, Nichinan School of Nursing

This study investigated the use of Generative AI for summary generation from case records in long-term care facilities to enhance the efficiency of information sharing and explore its application in practical caregiving.

Pseudonymized data were collected from multiple facilities and analyzed. The results, obtained through generating and comparing summaries and analyzing differences based on prompt variations, confirmed the utility of the approach, particularly in promoting understanding of assistance methods. However, challenges such as information oversimplification and ambiguities in the source records were also identified.

Furthermore, focusing on the tacit knowledge held by certified care workers (Kaigo Fukushima-shi), diverse forms of knowledge were extracted through participant observation and interviews. These included individualized user support, judgment in emergency situations, and the establishment of trust.

The sharing and utilization of this tacit knowledge is suggested to contribute to the advancement of professional expertise and organizational learning, thereby offering potential benefits for improving the quality of care services and reducing the burden on staff.