

Influencing factors of physician acceptance of AI-based clinical decision support systems (AI-CDSS) for diagnosis of rare diseases¹

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ABSTRACT

AI-CDSS can significantly enhance the decision-making performance of physicians who are not specialists in diagnosing rare diseases. Acceptance of the AI-CDSS is crucial for its effective use. In the Leuko-Expert project, the factors influencing physician acceptance of AI-CDSS were examined. This article introduces how these influencing factors were identified through a systematic review. Subsequently, semi-structured interviews were conducted to explore additional influencing factors for the use of AI-CDSS in the context of leukodystrophy. Finally, we discuss the limitations of transferring these findings to other rare disease cases and suggest directions for future research.

Keywords

Clinical decision support system (CDSS) – rare diseases – AI-supported diagnosis – physician acceptance

¹ This paper is dedicated to Prof. Dr. rer. nat. habil. Dr. phil.h.c. Winfried Hacker.