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Data Security Analysis in Electronic Health Information Systems

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ABSTRACT

This study aims to analyze data security in electronic health information systems (EHIS). With the increasing use of information technology in healthcare, data security issues are becoming increasingly important given the sensitivity of medical information. The research methodology involved an in-depth literature review as well as case study analysis on several hospitals that have implemented SIKE. Data analysis techniques included evaluation of system vulnerabilities, identification of potential threats, and assessment of data protection mechanisms in place. The results showed that despite various efforts to improve data security, there are still many vulnerabilities that can be exploited by irresponsible parties. The main threats include cyberattacks, data leakage, and unauthorized access. In addition, this study found that the implementation of security protocols such as data encryption, multi-factor authentication, and regular audits can significantly reduce these risks. However, this research has several limitations, including a limited sample of case studies that may not represent the entire SIKE landscape in Indonesia and limited access to internal hospital data. Nonetheless, this research makes a significant contribution in providing practical recommendations for SIKE managers to improve data security, as well as a basis for further research in this area.

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