

***Security Analysis of Electronic Medical Records in the Outpatient Installation
Based on Confidentiality, Integrity, and Availability Aspects at Baladhika
Husada Level III Hospital Jember***

Niyalatul Muna, S.Kom., M.T. (Supervisor)

Mudafiatun Isriyah

Health Information Management Study Program

Department of Health

ABSTRACT

The development of information technology in the healthcare sector has encouraged the implementation of electronic medical records (EMR) to improve the efficiency and quality of services. However, the implementation of EMR also presents challenges related to data security. This study aims to analyze the security of EMR in outpatient installation based on confidentiality, integrity, and availability. The type of research used is qualitative with data collection techniques of interviews, observation, documentation, USG (Urgency, Seriousness, Growth) methods, and discussions. The results of the study indicate that several issues remain in the confidentiality aspect, such as inconsistencies in user access rights, the lack of multi-factor authentication implementation, the use of shared accounts, the lack of password management and restrictions on duplicate logins, the lack of anti-automation controls, and the habit of storing usernames and passwords on Google Chrome. The integrity aspect is related to the lack of a data change history feature. Meanwhile, the availability aspect includes backup servers that are still in one location, limited generator availability, the lack of written SOPs for handling system errors, the lack of a routine manual data backup schedule, and the lack of a specific disaster recovery plan. Based on the problem priority analysis, the main problem lies in the limited availability of generators, which impacts the availability of EMR. Recommendations for improvements include providing generators to support system availability, developing SOPs for EMR security, improving user access rights management, and developing features to enhance data integrity and security.

Keywords: Security, EMR, Confidentiality, Integrity, Availability