

***Design and Development of Electronic Medical Records for Outpatient Dental Care Using the Scrum Method at the Insan Medika Primary Clinic.*** Mudafiq Riyani Pratama, S.Kom., M.Kom (Supervisor)

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## **ABSTRACT**

*The digital transformation of healthcare requires healthcare facilities to transition from manual documentation to electronic systems in order to improve efficiency and data accuracy. Klinik Pratama Insan Medika requires an Electronic Medical Record (EMR) system specifically designed for dental clinics, capable of supporting structured clinical documentation and meeting interoperability requirements with the SatuSehat platform. The research utilised the Scrum methodology, comprising six development cycles (sprints), to ensure the system's development was adaptive and aligned with user needs. The system was built as a web-based application using the Laravel framework and a MySQL database. System evaluation was conducted through Black Box Testing and Sprint Retrospective sessions involving the Clinic Head, Dentists, Nurses, and Registration Staff. The dental clinic EMR system was developed with key features including an interactive digital odontogram, pharmacy management, automated medical correspondence, and managerial reporting. This system has been successfully integrated with the SatuSehat platform for the transmission of organisational, location, patient, and medication data. Based on the results of functional testing, the system is operating in accordance with user requirements and provides a solution for optimising medical documentation as well as accelerating the national health data reporting process.*

**Keywords:** *Black Box Testing, Electronic Medical Record, Odontogram, SatuSehat, Scrum*