

Design and Development of Web-Based Electronic Medical Records at General Clinic Kefamenanu, North Central Timor Regency, East Nusa Tenggara Province

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ABSTRACT

Klinik Jendral Kefamenanu still uses manual medical records, resulting in an average patient registration wait time of 14 minutes and 17 seconds, exceeding the maximum standard of 10 minutes set by Minister of Health Decree No. 129 of 2008. Data from October to December 2023 show that delays in providing medical records of more than 10 minutes averaged 79%. This study aims to design and develop a web-based EMR system at Klinik Jendral Kefamenanu to streamline service processes and improve the quality of patient medical records. The design method uses a prototype approach, including needs identification, prototype development, and user adjustments. Data collection techniques include observation, interviews, and documentation. User needs analysis encompasses master patient data, users, diagnoses, and medications. The prototype development involves system flowcharts, context diagrams, data flow diagrams, entity relationship diagrams, and interface design. The system is built using PHP and HTML with the CodeIgniter framework and CSS Bootstrap version 5. System testing employs the Black-Box testing method. The result of this study is an EMR system that integrates patient registration and medical records, capable of processing and generating visit reports and top 10 disease reports. This system enhances service quality for patients, improves the quality of medical records, and supports clinic accreditation.

Keywords: Clinic, Prototype, Registration, EMR