

ABSTRAK

Pengelolaan persediaan obat yang masih dilakukan secara semi-manual berpotensi menimbulkan kesalahan pencatatan dan meningkatkan risiko obat kedaluwarsa. Penelitian ini bertujuan merancang dan membangun sistem berbasis website dengan menerapkan metode First Expired First Out (FEFO) serta mengintegrasikan teknologi Barcode Batch Code untuk membantu pengendalian obat kedaluwarsa di Apotek Klinik Bersalin Hamami Palembang. Pengembangan sistem dilakukan menggunakan metode Waterfall yang meliputi analisis kebutuhan, perancangan, implementasi, dan pengujian sistem. Metode FEFO digunakan untuk menentukan prioritas pengeluaran obat berdasarkan tanggal kedaluwarsa terdekat, sedangkan Barcode Batch Code digunakan untuk meningkatkan akurasi identifikasi dan pelacakan obat berdasarkan nomor batch dan tanggal kedaluwarsa. Hasil penelitian menunjukkan bahwa sistem yang dibangun mampu membantu pengelolaan persediaan obat melalui fitur pemantauan obat masuk dan obat keluar, notifikasi obat yang mendekati masa kedaluwarsa, serta pelabelan obat kedaluwarsa. Dengan adanya sistem ini, proses pencatatan dan pemantauan persediaan obat menjadi lebih efektif serta dapat membantu meminimalkan risiko kerugian akibat obat kedaluwarsa.

Kata Kunci: First Expired First Out (FEFO), Barcode Batch Code, Pengendalian Obat Kedaluwarsa, Persediaan Obat, Website.

ABSTRACT

Drug inventory management that is still carried out semi-manually may lead to recording errors and increase the risk of expired drugs. This study aims to design and develop a web-based system by implementing the First Expired First Out (FEFO) method and integrating Barcode Batch Code technology to support expired drug control at the Pharmacy of Hamami Maternity Clinic Palembang. The system was developed using the Waterfall method, which includes requirements analysis, system design, implementation, and testing. The FEFO method is applied to prioritize drug distribution based on the nearest expiration date, while Barcode Batch Code technology improves the accuracy of drug identification and tracking based on batch numbers and expiration dates. The results show that the developed system is able to support drug inventory management through features for monitoring incoming and outgoing drugs, expiration warning notifications, and expired drug labeling. The implementation of the system improves the effectiveness of recording and monitoring drug inventory and helps minimize losses caused by expired drugs.

Keywords: First Expired First Out (FEFO), Barcode Batch Code, Expired Drug Control, Drug Inventory, Website.