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DEVELOPMENT OF A DRUG MANAGEMENT SYSTEM TO ENSURE DRUG AVAILABILITY FOR PATIENTS IN THE HOSPITAL

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Background: Drug management is a critical component of healthcare, with precise medication dispensing being essential for both patient safety and efficient drug utilization. Globally, fully automated drug cabinets equipped with comprehensive drug tracking capabilities have been developed, along with advanced drug management software that assists healthcare providers in ensuring accurate and efficient medication management. In the Sri Lankan context drug management system heavily relies on manual criteria, causing errors and inefficiencies. This non-automated system negatively impacts patient care and resource management. This research aims to develop a hospital drug management system to ensure drug availability for patients.

Methodology: The features of existing automated drug cabinets and drug management software were identified through an extensive literature review. Through in-depth interviews with key stakeholders, a comprehensive understanding of the current drug management system at Teaching Hospital Kalutara was gained. A detailed use case diagram was developed by clearly outlining the system's workflows and processes. A software framework and user interface tailored to Teaching Hospital Kalutara was designed.

Deliverables: The study involved an assessment of the current drug management systems, identification of the specific requirements of stakeholders, and the design of a comprehensive drug management system tailored to the needs of local hospitals. The designed system was evaluated by using feedback from hospital staff, who assessed its usability.

Conclusion: This study established a comprehensive foundation for future advancements in drug management systems within Sri Lanka's healthcare context. The insights gained serve as a valuable roadmap for subsequent projects. The designed system should be developed for future work.

Keywords: Drug management system, Drug cabinet