

ABSTRAK

Efisiensi operasional merupakan tantangan utama rumah sakit, khususnya pada alur pelayanan Instalasi Gawat Darurat (IGD) menuju rawat inap yang bersifat kritis, kompleks, dan melibatkan koordinasi lintas unit. Ketidakefisienan pada alur ini berdampak pada meningkatnya waktu tunggu pasien, pemborosan sumber daya, serta menurunnya kepuasan pelayanan. Lean Management merupakan pendekatan sistematis yang berfokus pada eliminasi pemborosan (waste), penyederhanaan proses, dan perbaikan berkelanjutan (continuous improvement) untuk meningkatkan kinerja operasional layanan kesehatan. Penelitian ini bertujuan untuk menganalisis pengaruh penerapan Lean Management terhadap efisiensi operasional pada alur IGD–Rawat Inap di RS Royal Prima Medan. Penelitian ini menggunakan desain kuantitatif quasi-eksperimental dengan pendekatan pre-test dan post-test tanpa kelompok kontrol. Intervensi Lean Management meliputi eliminasi waste, penerapan 5S, penggunaan Value Stream Mapping (VSM), Kaizen, serta sistem pull dan flow. Sampel penelitian terdiri dari 60 tenaga kesehatan dan administrasi yang terlibat langsung dalam alur IGD–Rawat Inap. Data dikumpulkan melalui observasi, kuesioner, serta data sekunder rumah sakit, kemudian dianalisis menggunakan analisis univariat dan bivariat (uji paired t-test). Hasil penelitian menunjukkan bahwa penerapan Lean Management berada pada kategori baik dengan skor rata-rata 3,77 (73%). Implementasi Lean secara signifikan menurunkan total lead time pelayanan dari 135 menit menjadi 74 menit (penurunan 45%). Selain itu, terjadi peningkatan indikator efisiensi rumah sakit, yaitu BOR dari 78% menjadi 82%, BTO dari 42 menjadi 48 kali, serta kepuasan pasien dari 72% menjadi 86%, disertai penurunan ALOS dari 4,8 menjadi 4,1 hari dan TOI dari 1,9 menjadi 1,3 hari. Uji statistik menunjukkan adanya pengaruh signifikan penerapan Lean Management terhadap efisiensi operasional ($p = 0,000$). **Kesimpulan** penelitian ini menegaskan bahwa Lean Management efektif dalam meningkatkan efisiensi operasional, mempercepat alur pelayanan, mengoptimalkan pemanfaatan sumber daya, serta meningkatkan kepuasan pasien. Penerapan Lean secara berkelanjutan direkomendasikan sebagai strategi manajerial rumah sakit untuk mendukung mutu pelayanan dan daya saing institusi kesehatan.

Kata kunci: Lean Management, Efisiensi Operasional, IGD–Rawat Inap, Waste, Rumah Sakit

ABSTRACT

Operational efficiency is a primary challenge for hospitals, particularly regarding the service flow from the Emergency Department (ED) to inpatient wards, which is critical, complex, and involves cross-unit coordination. Inefficiencies in this workflow result in increased patient waiting times, resource waste, and a decline in service satisfaction. Lean Management is a systematic approach focused on waste elimination, process simplification, and continuous improvement to enhance healthcare operational performance. This study aims to analyze the influence of Lean Management implementation on operational efficiency in the Emergency Department (ED) to Inpatient flow at Royal Prima Hospital Medan. The research employs a quantitative quasi-experimental design with a pre-test and post-test approach without a control group. Lean Management interventions include waste elimination, 5S implementation, the use of Value Stream Mapping (VSM), Kaizen, as well as pull and flow systems. The research sample consists of 60 healthcare professionals and administrative staff directly involved in the ED-to Inpatient workflow. Data were collected through observations, questionnaires, and secondary hospital data, then analyzed using univariate and bivariate analysis (paired t-test). The results showed that the implementation of Lean Management was in the 'good' category with an average score of 3.77 (73%). Lean implementation significantly reduced the total service lead time from 135 minutes to 74 minutes (a 45% reduction). Furthermore, there was an improvement in hospital efficiency indicators, namely: BOR increased from 78% to 82%, BTO increased from 42 to 48 times, and patient satisfaction rose from 72% to 86%, accompanied by a decrease in ALOS from 4.8 to 4.1 days and TOI from 1.9 to 1.3 days. Statistical testing indicated a significant influence of Lean Management implementation on operational efficiency ($p = 0.000$). The conclusion of this study confirms that Lean Management is effective in enhancing operational efficiency, accelerating service flow, optimizing resource utilization, and increasing patient satisfaction. Sustained Lean implementation is recommended as a hospital managerial strategy to support service quality and the competitiveness of healthcare institutions.

Keywords: *Lean Management, Operational Efficiency, Emergency Department, Inpatient Flow, Waste, Hospital*