# Penerapan Intervensi Lean Six Sigma Dalam Menurunkan Waktu Tunggu Obat Pasien Rawat Jalan di Rumah Sakit Swasta Tipe B Tangerang Selatan Tahun 2026

Sumarsono, Reny Astuty



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Abstrak

Latar Belakang : Waktu tunggu obat merupakan salah satu indikator penting rumah sakit dalam menilai mutu pelayanan kepada pasien. Lamanya waktu tunggu dapat memengaruhi tingkat kepuasan pasien yang berobat di rumah sakit. Berdasarkan Key Performance Indicator (KPI), standar waktu tunggu pelayanan obat non-racikan adalah  ≤ 10 menit dengan target pencapaian 90%, sedangkan untuk obat racikan ≤ 30 menit dengan target pencapaian 80%. Pencapaian waktu tunggu obat non-racikan pada tahun 2024 sebesar 62,57% dan tahun 2025 sebesar 63,17%. Sementara itu, pencapaian waktu tunggu obat racikan pada tahun 2024 sebesar 36,58% dan tahun 2025 sebesar 29,13%. Hasil tersebut menunjukkan bahwa pencapaian waktu tunggu pelayanan obat masih berada dibawah target yang telah ditetapkan. Tujuan : Menurunkan waktu tunggu obat non racikan dan racikan dengan menggunakan konsep Lean Six Sigma di Instalasi Farmasi Rawat Jalan Rumah Sakit Swasta Tipe B di Tangerang Selatan Metode : Penelitian ini mempunyai desain operational research yang menggabungkan metode kuantitatif dan kualitatif. Peneliti melakukan observasi dengan time motion study. Teknik pengambilan sampel yang digunakan adalah stratified random sampling, dengan total sampel sebanyak 202 pasien yang berobat dan mendapat obat di rumah sakit. Pemilihan sampel didasarkan pada shift dan jenis penjaminan yang telah ditetapkan. Hasil : Hasil        penelitian dengan pendekatan Lean Six Sigma berhasil mengidentifikasi Lead time waktu tunggu obat non-racikan di Rumah Sakit Swasta Tipe B di Tangerang Selatan yaitu sebesar 14 menit 16 detik dimana 72% merupakan kegiatan non-value added yang didominasi oleh waste tipe waiting sebesar 6 menit 3 detik (59%). Untuk Lead time waktu tunggu obat racikan 47 menit 1 detik dimana 64% merupakan kegiatan non-value added yang didominasi oleh waste tipe waiting sebesar 19 menit 19 detik (64%). Analisis akar masalah dilakukan menggunakan Pareto dan Five Whys. Penerapan lean six sigma dalam proses waktu tunggu obat racikan berhasil mengurangi lead time untuk waktu tunggu obat non-racikan sebesar 44,74% dari 14 menit 16 detik menjadi 7 menit 53 detik, pada tahap kontrol sebesar 6 menit 32 detik. Lead time waktu tunggu obat racikan menurun sebesar  42,61% dari 47 menit 1 detik menjadi 26 menit 59 detik, pada tahap kontrol lead time sebesar 22 menit 45 detik.  Terjadi penurunan waste total dari sebelum intervensi dengan setelah dilakukan intervensi pada obat non-racikan yaitu sebesar 72,98% dan obat racikan sebesar 72,17%. Penurunan waktu non-value added obat non-racikan dari 10 menit 18 detik menjadi 2 menit 47 detik, sedangkan untuk obat racikan dari 30 menit 18 detik menjadi 8 menit 26 detik. Kesimpulan        : Terdapat penurunan waktu tunggu obat racikan dan non-racikan di Rumah Sakit Swasta Tipe B di Tangerang Selatan setelah penerapan Lean Six Sigma. Penurunan waktu tunggu obat masih dibawah target KPI yang ditetapkan oleh Rumah Sakit Swasta Tipe B di Tangerang Selatan. <hr /> Background: A Drug waiting time is one of the key indicators used by hospitals to assess the quality of patient care services. Prolonged waiting times can significantly affect patient satisfaction. Based on the Key Performance Indicators (KPIs), the standard waiting time for

dispensing non-compounded medications ≤10 minutes, with a target achievement rate of 90%, while the standard waiting time for compounded medications  ≤ 30 minutes, with a target achievement rate of 80%. The achievement rate for non-compounded medication waiting time was 62.57% in 2024 and 63.17% in 2025. Meanwhile, the achievement rate for compounded medication waiting time was 36.58% in 2024 and 29.13% in 2025. These results indicate that the performance of medication dispensing waiting times remains below the established targets. Objective: Reduction of Waiting Times for Non-Compounded and Compounded Medications Through the Lean Six Sigma Approach in the Outpatient Pharmacy Department of a Type B Private Hospital in Tangerang Selatan. Methods: This study employed an operational research design integrating quantitative and qualitative methods. Observations were conducted using a time-motion study to analyze the outpatient pharmacy workflow. A stratified random sampling technique was used to select a total of 202 outpatients who received medications from the hospital. Participants were stratified according to predetermined work shifts and payer categories. Results: The Lean Six Sigma approach successfully identified a lead time of 14 minutes and 16 seconds for non-compounded medications in the outpatient pharmacy department of a Type B private hospital in Banten Province, of which 72% consisted of non-value-added activities, predominantly waiting waste, accounting for 6 minutes and 3 seconds (59%). The lead time for compounded medications was 47 minutes and 1 second, with 64% classified as non-value-added activities, mainly waiting waste, totaling 19 minutes and 19 seconds (64%). Root cause analysis was conducted using the Pareto principle and the Five Whys method. Implementation of Lean Six Sigma reduced the lead time for non-compounded medications by 44.74%, from 14 minutes and 16 seconds to 7 minutes and 53 seconds, with a sustained lead time of 6 minutes and 32 seconds during the control phase. For compounded medications, the lead time decreased by 42.61%, from 47 minutes and 1 second to 26 minutes and 59 seconds, with a control-phase lead time of 22 minutes and 45 seconds. Total waste decreased by 72.98% for non-compounded medications and 72.17% for compounded medications following the intervention. Non-value-added time for non-compounded medications was reduced from 10 minutes and 18 seconds to 2 minutes and 47 seconds, while for compounded medications it decreased from 30 minutes and 18 seconds to 8 minutes and 26 seconds. Conclusion: There was a reduction in the waiting times for both compounded and non-compounded medications of a Type B private hospital in Banten Province following the implementation of Lean Six Sigma. However, despite this improvement, the medication waiting times remained below the Key Performance Indicator (KPI) target established by the hospital.</div>