

# Pengurangan Waktu Tunggu Hasil Laboratorium Sebagai Upaya Peningkatan Mutu Layanan Laboratorium Dengan Pendekatan Lean Six Sigma di RS Universitas Indonesia Tahun 2021

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## Abstrak

Waktu tunggu hasil pemeriksaan laboratorium sebagai ukuran kinerja pelayanan merupakan syarat penting membuktikan kualitas pelayanan laboratorium. Kecepatan waktu hasil pemeriksaan laboratorium mempengaruhi penetapan diagnosis serta terapi pasien. Indikator sasaran mutu laboratorium menetapkan target waktu tunggu pemeriksaan hasil laboratorium kimia 120 menit. Pencapaian sasaran indikator mutu di tahun 2020 baru 70% dari target yang ditetapkan, juga masih terdapat keluhan lambatnya hasil pemeriksaan. Studi pendahuluan bulan Januari sampai Februari 2021 terdapat 18% waktu tunggu diatas 120 menit. Metode Lean six sigma fokus terhadap perbaikan dengan mendorong peningkatan secara tajam dalam kecepatan, kualitas dan profitabilitas. Penelitian ini merupakan operational research untuk memberikan rekomendasi perbaikan waktu tunggu pemeriksaan laboratorium dengan menggunakan pendekatan metode DMAIC terdiri dari siklus Define (mendefinisi), Measure (mengukur), Analyze (menganalisis), Improve (rekomendasi perbaikan), dan Control (pengendalian) Hasil penelitian mendapatkan gambaran terjadinya pemborosan di tahap pra analitik, analitik dan pasca analitik yang berdampak terhadap waktu tunggu hasil pemeriksaan laboratorium. Pemborosan yang paling dominan terjadi di tahap pra analitik. Persentase value added pelayanan pemeriksaan Laboratorium sebelum penerapan Lean six sigma sebesar 67.30% dan non value added sebesar 33.83%. Setelah penerapan Lean six sigma nilai value added meningkat 38.48% menjadi 91.32% dan value added menurun 28.42% menjadi 8.68 %. Ditemukan adanya delapan jenis pemborosan, sebagian besar merupakan pemborosan defect, over processing, delays (waiting time), over production. Pemborosan banyak terjadi di tahap pra analitik dan pasca analitik. Sumber terjadinya pemborosan berdasarkan hasil analisis fishbone adalah man dan method dikarenakan kuantitas ATLM (Analisis Teknis Medik Laboratorium) belum mencukupi dan belum efektifnya penanganan spesimen laboratorium serta metode serah terima. Usulan perbaikan disusun menggunakan lean tools seperti standardized work, visual management, error profing, dan penerapan 5S (Short, Stabilize, Shine, Standardize, Sustain) Intervensi yang dilakukan dengan usulan alur pemeriksaan laboratorium, metode serah terima spesimen, serta edukasi ulang tentang penanganan spesimen laboratorium dan usulan pelatihan Flebotomi

Waiting time for laboratory test results as a measure of service performance is an important requirement to prove the quality of laboratory services. The timing of the results of laboratory examinations affects the determination of the patient's diagnosis and therapy. The laboratory quality target indicator sets a target waiting time for the examination of chemical laboratory results of 120 minutes. The achievement of the quality indicator targets in 2020 is only 70% of the target set, there are also complaints about the slowness of the inspection results. Preliminary study from January to February 2021 showed 18% waiting time above 120 minutes.methods Lean six sigma focus on improvement by driving sharp improvements in speed, quality and profitability. This research is anoperational research to provide recommendations for improving waiting time for laboratory examinations using the DMAIC method approach consisting of a cycle of Define (defining), Measure (measure), Analyze (analyze), Improve

(recommendation for improvement) and Control (Controlling). The results of the study get an overview of the occurrence of waste in the pre-analytical, analytical and post analytic stages which have an impact on the waiting time for laboratory results. The most dominant wastage occurred in the pre-analytic stage. The percentage of value added of laboratory inspection services before the implementation of Lean six sigma is 67.30% and non value added is 33.83%. After the implementation of Lean six sigma, the value added increased by 38.48% to 91.32% and the value added decreased by 28.42% to 8.68%. It was found that there were eight types of waste, most of which were defects, over processing, delays (waiting time), over production. A lot of waste occurs in the preanalytic and post-analytic stages. Sources of waste based on analysis results fishbone are man and method due to quantity of ATLM (Laboratory Medical Technical Analyst) and ineffective handling of laboratory specimens and handover methods. Improvement proposals are prepared using lean tools such as standardized work, visual management, error profiling, and the application of 5S(Short, Stabilize, Shine, Standardize, Sustain) Interventions carried out with the proposed flow of laboratory examinations, specimen handover methods, as well as re-education on handling laboratory specimens and proposed phlebotomy training </em>