



## PENERAPAN SISTEM KANBAN DI INSTALASI FARMASI RAWAT JALAN RS PANTI RINI

### INTISARI

**Latar belakang:** Rumah Sakit Panti Rini berusaha mengupayakan perbaikan untuk meningkatkan kualitas pelayanan, salah satunya di Instalasi Farmasi. Terdapat beberapa permasalahan di Instalasi Farmasi pada proses distribusi obat ke unit. Menurut hasil pengamatan, *waste* dominan yang ditemukan di Instalasi Farmasi RS Panti Rini adalah *motion* dan *inventory*.

**Tujuan:** Mengimplementasikan sistem *Kanban* untuk mengurangi *waste of motion* dan *inventory* di Instalasi Farmasi Rawat Jalan RS Panti Rini. Secara khusus akan mengidentifikasi faktor yang mempengaruhi proses distribusi obat, *waste of motion* dan *inventory* dan penyebabnya pada alur distribusi obat, mengidentifikasi sistem *Kanban* yang tepat, menerapkan sistem *Kanban*, mengukur waktu proses alur distribusi obat sebelum dan sesudah penerapan sistem *Kanban*, dan mengetahui persepsi staf.

**Metode:** Jenis penelitian *action research*, yang terdiri dari: 1) Tahap diagnosis, bersama dengan partisipan dalam mengidentifikasi dan mengelompokan *waste* melalui FGD, 2) Tahap perencanaan, melibatkan partisipan dalam menentukan ide perbaikan dan menetapkan intervensi melalui FGD, 3) Tahap *action*, bersama partisipan mengimplementasikan intervensi solusi yang telah ditetapkan bersama, 4) Tahap evaluasi, membandingkan rata-rata waktu *lead time*, *cycle time*, *VAR*, persepsi staf, serta perubahan *waste*.

**Hasil dan Pembahasan:** Setelah dilakukan intervensi sistem *Kanban* kartu tunggal, didapatkan adanya reduksi *waste of motion* sebesar 79,42% dan *waste of inventory* sebesar 46,88%. Penurunan *lead time* di IGD dari 3 jam 35 menit 8 detik menjadi 1 jam 21 menit 7 detik dan *lead time* di Poli dari 4 jam 3 menit 57 detik menjadi 2 jam 57 menit 24 detik. Terdapat kenaikan nilai *VAR* di unit IGD sebesar 34,18% dan Poli Rawat Jalan sebesar 9,47%. Hasil uji *Independent T-Test* menunjukkan bahwa  $p=0,00$  ( $p<0,05$ ) sehingga hasilnya signifikan. Selain itu, persepsi staf dinilai sangat baik.

**Kesimpulan:** Penerapan sistem *Kanban* dapat menurunkan *waste of motion* dan *waste of inventory*, menurunkan waktu proses distribusi obat, dan meningkatkan persepsi staf terhadap penerapan sistem *Kanban*.

**Kata Kunci:** *kanban*, *lean management*, farmasi, distribusi obat



## IMPLEMENTATION OF KANBAN SYSTEM IN OUTPATIENT PHARMACY IN PANTI RINI HOSPITAL

### ABSTRACT

**Background:** Panti Rini Hospital always tries to make improvements to improve service quality, one of which is in the pharmacy installation. There were several problems at the pharmacy installation during the drug distribution process to the unit. According to observations, the dominant waste found in the pharmacy installation at Panti Rini Hospital are motion and inventory.

**Objective:** Implementing the Kanban system to reduce waste motion and inventory at the Outpatient Pharmacy of Panti Rini Hospital. Specifically, it will identify factors affecting the drug distribution process, waste of motion and inventory and its causes in the drug distribution flow, identify the right Kanban system, implement the Kanban system and measure the drug distribution flow process time before and after the implementation of the Kanban system, and staff perception.

**Method:** Action research, which consists of: 1) The diagnosis stage, together with the participants in identifying and classifying waste, 2) The planning stage, involving participants in determining improvement ideas and determining interventions, 3) The action stage, together with the participants implementing the solution which have been determined together, 4) The evaluation stage, comparing the average lead time, cycle time, VAR, staff perception, and waste.

**Results and Discussion:** After the intervention of the single card Kanban system, it was found that there was a reduction in waste of motion by 79.42% and waste of inventory by 46.88%. Decreased lead time in the ER from 3 hours 35 minutes 8 seconds to 1 hour 21 minutes 7 seconds and lead time in outpatient clinic from 4 hours 3 minutes 57 seconds to 2 hours 57 minutes 24 seconds. There was an increase in the value of VAR in the ER unit by 34.18% and outpatient clinic by 9.47%. The results of the Independent T-Test show that  $p = 0.00$  ( $p < 0.05$ ) so the results are significant. In addition, there was a very good staff's perception.

**Conclusion:** The implementation of the Kanban system can reduce motion and inventory, reduce the lead time of the drug distribution process, and increase the staff's perception of the implementation of the Kanban system.

**Keywords:** kanban, lean management, pharmacy, drug distribution.