

ABSTRAK

Latar Belakang: Dalam rangka merespon pandemi COVID-19, Rumah Sakit Pondok Indah - Pondok Indah (RSPI-PI) membuat layanan *swab* PCR *drive-thru* sejak Juli 2020. Layanan ini dituntut memberikan hasil dalam waktu 6 jam, namun kenyataannya target ini belum bisa tercapai. Guna meningkatkan pelayanan, per Februari 2021 RSPI-PI membuat suatu aplikasi registrasi *online*. **Tujuan:** Menganalisis waktu tunggu layanan *swab test drive-thru* RSPI-PI sebelum dan sesudah menggunakan aplikasi serta memberikan usul perbaikan pada masalah antrian *drive-thru*. **Metode:** Penelitian ini merupakan penelitian eksploratif deskriptif yang dilakukan di RSPI-PI, Jakarta di unit *drive-thru* dengan fokus pelayanan *swab* PCR. Data yang digunakan adalah berupa hasil data sekunder dari sistem TrakCare, data aplikasi registrasi *online*, data observasi lapangan, dan *focus group discussion* untuk analisis akar masalah. Total sampel yang diteliti adalah 17,635 sampel, lalu diambil sampel sebanyak 562 dari masing-masing kelompok. Sistem antrian layanan *swab test drive-thru* RSPI-PI adalah *multi-channel* dan *multi-phase*. Kapasitas antrian diasumsikan tidak terbatas dan menerapkan sistem *FCFS (First Come First Serve)*. Metode analisis menggunakan uji normalitas Kolmogorov-Smirnov dan data distribusi pola kedatangan diolah menggunakan *software* minitab. Kinerja antrian diolah menggunakan *software* WinQSB. **Hasil:** Setelah penggunaan aplikasi, terdapat penurunan waktu tunggu keseluruhan (68,64%; $p=0,00$) dan pada tahap pertama (-99,46%) dan kedua (-83,13%). Penggunaan aplikasi menurunkan tingkat layanan efektif sistem, rata-rata jumlah pelanggan dalam sistem, rata-rata jumlah pelanggan dalam antrian, dan rata-rata waktu yang dihabiskan pelanggan dalam sistem. Walaupun demikian, penggunaan aplikasi tidak terlalu memberikan perubahan waktu signifikan pada proses ketiga (+24,70%) dan keempat (+27,90%). Setelah dianalisis, terdapat masalah pada sumber daya manusia dan manajemen alur yang menyebabkan antrian. **Kesimpulan:** Penggunaan aplikasi menurunkan waktu tunggu layanan *swab drive-thru* di RSPI-PI secara signifikan, terutama pada dua tahapan awal.

Kata Kunci: Waktu tunggu, Kinerja antrian, *Drive-thru Swab* PCR COVID-19.

ABSTRACT

Background: In response to the COVID-19 pandemic, Pondok Indah – Pondok Indah Hospital (RSPI-PI) has launched a drive-thru PCR swab service since July 2020. This service is mandated to provide results within 6 hours, but this target has not been achieved. In order to improve services, as of February 2021 the RSPI-PI made an online application registration. **Objective:** To analyze the waiting time for the RSPI-PI drive-thru swab test service before and after using the application and to propose improvements to the existing problems in the drive-thru queue. **Methods:** This study is a descriptive-explorative study conducted at the RSPI-PI, Jakarta in a drive-thru unit with a focus on PCR swab services. The data used were secondary data from the TrakCare system, online registration application, field observation data, and focus group discussion for root cause analysis. The total sample studied was 17,635 samples, then 562 samples were taken from each group. Queue capacity is assumed to be unlimited and applies the FCFS (First Come First Serve) system. The analysis methods used were Kolmogorov-Smirnov normality test. The arrival pattern distribution data was analyzed using the minitab software and queue performance was analyzed using the WinQSB software. **Results:** After the application is applied, there was a decrease in overall waiting time (68.64%; $p=0.00$) and in the first (-99.46%) and second (-83.13%) stages. The use of the application reduces the effective service level of the system, the average number of customers in the system, the average number of customers in the queue, and the average time customers spend in the system. However, the use of the application did not significantly change the time in the third stage (+24.70%) and fourth stage (+27.90%). After being analyzed, there are problems in human resources and flow management that cause queues. **Conclusion:** The use of the application reduces the waiting time of the drive-thru swab service in RSPI-PI significantly, especially in the first two stages.

Keywords: Waiting time, Queue performance, Drive-thru swab PCR COVID-19.