

QUALITY IMPROVEMENT : REVOLUTIONIZING PORTER SYSTEM THROUGH EMERGENCY DEPARTMENT INTEGRATED E-PPK SYSTEM [ED-IES]

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No 126

INTRODUCTION

PPK or porters play a crucial role in facilitating effective hospital operations and enhancing patient care. The conventional management of porters is deficient in monitoring, temporal and spatial data, and communication, which adversely impacts their efficiency and causes patient delays in the ED.

METHODOLOGY

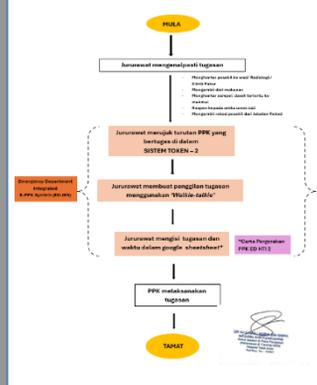
A two-year (January,2024 – January,2026) quality improvement initiative was conducted in the ED of Hospital Teluk Intan to evaluate the impact of the ED-IES system on the operational performance of ED porters. This assessment focused on turnaround time, productivity, porter satisfaction, reduction in cost and manpower, and patient length of stay (LOS) in green and yellow zones.

ED-IES system integrates the usage of walkie-talkie as a means of communication tool and online PPK token system.

RESULTS

Post-implementation of the ED-IES, response time significantly decreased from 30 minutes (IQR 15-45 minutes) to 5 minutes (IQR 5-10 minutes). Productivity improved by 30%, with porters completing an additional 5 tasks daily. A notable 86% of respondents indicated that the ED-IES promotes equitable treatment and job fairness, while 89% agreed that walkie-talkies enhance communication between healthcare staff and porters. Additionally, 66% acknowledged the accessibility of porters' temporal and spatial data, and 89% claimed that the ED-IES framework exhibits greater productivity than the traditional porter management system. The number of PPKs per shift was reduced to 5, along with a 35% decrease in overtime costs. In the green zone, ED LOS > 8 hours reduced from 1.03% in 2022 to 0.58% and 0.64% in 2023 and 2024. In the yellow zone, LOS > 8 hours fell from 1.80% in 2022 to 1.10% and 1.01% in 2023 and 2024.

Carta Alir 3: Penugasan Pembantu Perawat Kesihatan (PPK) di Jabatan Kecemasan Hospital Teluk Intan (SELEPAS INOVASI -2)



DISCUSSION

The traditional porter management system employed a manual communication framework, which consequently resulted in delays in addressing task requests. Moreover, porters were assigned based on their designated zones, thereby creating bottlenecks in task execution, particularly during peak operational hours. The absence of effective monitoring by supervisors, along with inadequate spatial data, further exacerbates this challenge.

NAMA	MASA NAMA PPK	SYIF BAGI TUGASAN -2024PM										SYIF																	
		08.15.00AM	09.15.00AM	10.15.00AM	11.15.00AM	12.15.00AM	01.15.00PM	02.15.00PM	03.15.00PM	04.15.00PM	05.15.00PM	06.15.00PM	07.15.00PM	08.15.00PM	09.15.00PM	10.15.00PM	11.15.00PM	12.15.00PM	01.15.00AM	02.15.00AM	03.15.00AM	04.15.00AM	05.15.00AM	06.15.00AM	07.15.00AM	08.15.00AM	09.15.00AM	10.15.00AM	11.15.00AM
SYIF	08.15.00AM	09.15.00AM	10.15.00AM	11.15.00AM	12.15.00AM	01.15.00PM	02.15.00PM	03.15.00PM	04.15.00PM	05.15.00PM	06.15.00PM	07.15.00PM	08.15.00PM	09.15.00PM	10.15.00PM	11.15.00PM	12.15.00PM	01.15.00AM	02.15.00AM	03.15.00AM	04.15.00AM	05.15.00AM	06.15.00AM	07.15.00AM	08.15.00AM	09.15.00AM	10.15.00AM	11.15.00AM	12.15.00AM
TOTAL	30	4	11	37	34	18	7	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CONCLUSION

ED-IES system facilitates a broad spectrum of operational improvements, enhances productivity, increase porters' satisfaction levels, reduces manpower and costs, and optimizes ED LOS.

Tugas dan Tanggungjawab Pembantu Perawatan Kesihatan Kementerian Kesihatan Malaysia. Lembaga Pembantu Perubatan. 2019.

