

# Strategies for Managing Overcrowding in Emergency Departments: Methodology and Approach Implemented by the Ministry of Health Malaysia

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## Introduction

Emergency department (ED) overcrowding (OC) has been a persistent global issue for over a decade with Malaysia among the nations impacted. Hence the Ministry of Health (MOH) Malaysia has implemented diverse strategies to manage OC.

## Objectives

The aim of this study is to investigate the strategies employed by MOH hospitals in Malaysia to address the issue of OC.

## Methods

This cross-sectional study was conducted in year 2023, utilising a universal sample comprising of all MOH hospitals with ED. Data was collected via a self-administered checklist that was distributed by state's liaison officer (LO) to the LOs at hospital level. Data was analysed using thematic analysis and mapped according to the conceptual model of ED crowding by Asplin & Brent R. et al (2003) that categorises ED processes under "input", "throughput" and "output" components.

## Results

All 138 public hospitals under the MOH were involved in this study. The thematic analysis of the strategies revealed six domains under the input component, seven domains under throughput, and nine domains under output, resulting in a total of 22 domains and 42 subdomains. With 18 subdomains, the output domain boasted the largest number of subdomains. Under the output component, bed management unit was the most frequently employed strategy, followed by discharge lounge and stepdown under the cluster hospital initiative. The throughput component ranked second in usage, with visual management, ED process, and audit and monitoring emerging as the top three most utilized strategies. Lastly was the strategies under the input component, in which redirection policy, step-up admission under cluster hospital, and direct admission were among the most commonly employed strategies.

## Conclusion

Strategies under the output component were the most used strategies compared to strategies from the other components. This is most probably due to the output component housing strategies that are policy-driven, and based on the national guideline. The decision to choose and implement strategies either from the input, throughput, or output components varies across hospitals, as each hospital selects its strategies based on its distinct management approaches. Nevertheless, it is recommended that all hospitals

consider these components in implementing their strategies to ensure a holistic approach to addressing the issue of overcrowding.

Keywords

emergency department, strategy, overcrowding