

Rehospitalization after Acute Myocardial Infarction: A Malaysian Longitudinal Study

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ABSTRACT

Introduction: Rehospitalizations after acute myocardial infarction (AMI) are common, costly and affect quality of life of patients. Hospital readmission rates reflect the quality of patient care. This study aims to evaluate the rate, patterns and predictors of AMI readmissions in Malaysian public hospitals. **Methods:** Retrospective longitudinal study using data from population-based registry, 'Sistem Maklumat Rawatan Perubatan' in Malaysian Healthcare Data Warehouse database. Discharges coded I21 under ICD-10-CM between 1st January to 31st December 2016 were reviewed. Outcome was any first readmission after index AMI admission for AMI-specific cause in any public hospital. **Results:** Among the 18,102 patients who survived index AMI admission, 1,208 (mean age 58.34 years, 79.7% males) were readmitted within one year. Median time to first readmission was 29.0 days. The 30-day readmission rate was 3.37%. After adjustment for potential confounders, ≤ 2 days length of stay (aOR 1.85; 95% CI 1.37, 2.51) and intensive care unit admission (aOR 1.35; 95% CI 1.04, 1.77) were associated with increased risk of readmission within 30 days. ≥ 65 years old (aOR 1.41; 95% CI 1.15, 1.74), Indian ethnicity (aOR 1.39; 95% CI 1.12, 1.73), ≤ 2 days length of stay (aOR 1.41; 95% CI 1.13, 1.76) and had STEMI (aOR 1.24; 95% CI 1.01, 1.53) or NSTEMI (aOR 1.15; 95% CI 1.02, 1.30) were associated with increased risk of hospital readmission within a year. **Conclusion:** This is the first study of its kind in Malaysia and will be the foundation for future AMI readmission studies. This will assist policymakers and healthcare practitioners in evaluating the quality of public hospitals' services while reducing healthcare costs.

Midterm Outcome Evaluation of Government-Led Endeavors to Eliminate Hepatitis C (HCV) as a Public Health Threat by 2030 in Malaysia

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ABSTRACT

Introduction: Malaysia has been actively battling hepatitis C since 2016, primarily through partnerships with access-oriented non-profit organizations and drug price control by compulsory licensing of sofosbuvir, a patented direct-acting antiviral. This study evaluated the impact of such initiatives on the treatment coverage, health expenditure of the government, and clinical outcomes of patients. **Methods:** The data contributed by 144 public hospitals across Malaysia was used to assess the trend changes in the number of hepatitis C patients treated and the corresponding drug expenditure between 2013 and 2019 (before and after government-driven interventions). The information on the effectiveness of the sofosbuvir-daclatasvir regimen was also gathered from medical records of hepatitis C patients, who sought care from 16 selected hospitals between April 2018 and March 2020. **Results:** While the number of hepatitis C patients receiving treatment increased by >10 times (from 299 in 2013 to 3,116 in 2019; $p < 0.001$), drug expenditure on hepatitis C relative to the overall health expenditure was not significantly expanded over time ($p = 0.094$). Treatment completion was reported in 91.1% of the 1,797 patients studied for their clinical outcomes, who recorded a sustained virologic response (complete cure) rate of 95.4% (95% CI: 94.2, 96.7%). Treatment outcomes varied across neither viral genotypes nor cirrhosis status. Nevertheless, an age ≥ 50 years elevated the treatment failure risk (adjusted OR: 2.13; 95% CI: 1.16, 3.92). **Conclusion:** The findings demonstrate the sustainability and scalability of the existing hepatitis C care model in Malaysia, along with the great real-world effectiveness of the treatment.