

## **Trends in hospitalized myocardial infarction incidence in Sri Lanka: A retrospective study**

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Myocardial infarction (MI) has been one of the leading causes of morbidity and mortality across the world. Since the MI burden is substantial in Sri Lanka, comprehensive data on MI incidence and in-hospital mortality trends are limited. Understanding these trends is crucial for improving patient outcomes and guiding preventive measures. This study aimed to identify the trends in incidence and mortality rates of MI cases in public sector hospitals in Sri Lanka from 2012 to 2021 and to predict future trends. A retrospective study was conducted on secondary data from public sector hospital admissions and in-hospital MI deaths from 2012 to 2021. Data were obtained from the “Annual Indoor Morbidity and Mortality Reports”. The data were entered and analyzed using SPSS V.26. Incidence and mortality rates were calculated per 100,000 population. The auto-regressive integrated moving average (ARIMA) model was used to project the future MI incidence. The incidence rates of MI have increased from 2012 to 2021. For both sexes, it rose from “137” in 2012 to “267” in 2019 before slightly declining to “230” in 2021. Male incidence was consistently higher than female, showing a growth rate of 5.88% annually compared to females (4.86%). Predicted values from 2022 to 2031 suggest a continued rise in MI incidence, with the rate for both sexes projected to reach “390” by 2031. Mortality rates demonstrated fluctuations, with a general increase from “185” in 2012 to “259” in 2019, followed by a decrease to “216” in 2021. The mortality rate due to MI was consistently higher among males compared to females. Hospitalized MI incidence in Sri Lanka has shown an upward trend during the past decade, and is expected to increase in the next decade. This indicates an urgent need for focused preventive measures and strategies.

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