JAMSA
Journal of Asian Medical Students' Association

PAPER COMPETITIONS

Health utilization dynamics for the leading causes of inpatient and ambulatory care in Mongolia; COVID-19 indirect effects and beyond

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Introduction

In 2020, Mongolia was one of the first countries in the world to implement a comprehensive policy response to the COVID-19 pandemic, early and timely manner. A detailed study of these transitions is of paramount importance in developing recommendations to reduce disease burden and reduce mortality.

Objective

We aimed to investigate the epidemiological shifts observed in Mongolia for the leading causes of hospitalization and outpatient visits during the pandemic year, as observed by the health system across the country.

1. To study changes to inpatient and outpatient care of diseases observed in Mongolia in 2020, for interrupted time-series analyses 2019 as a baseline
2. Assessing the community mobility and the incidence of other concomitant diseases, including injuries and poisoning in relevance to lockdown measures

Methods

Data analysis was based on nationwide epidemiological data gathered to the H-Info system of the Center for Health Development of Mongolia. The epidemiological transition and shifts of diseases and injuries of total patients who visited the Mongolian health care services in 2020 were studied using the R(2020/2019) rate, compared to 2019 by the series of interrupted time-series analyses.

Results

We found healthcare utilization (R>1) has increased as the growing number of stroke, uterine prolapse, and acute upper gastrointestinal complications cases. However, pulmonary arterial hypertension, congenital disorders, peptic ulcer, non-ST-Elevation myocardial infarction did not show remarkable change (R=1). The majority of the diseases including decompensated cirrhosis and other chronic liver diseases, all types of myocardial infarction indicated a decline. Surprisingly, lower and upper respiratory tract infections showed a remarkable decrease, which has been the leading cause for hospitalization (R<1). Regarding the comparison of before and after pandemic mobility rates with injury epidemiology, total cases of injury and trauma seem to be reduced, but the burn injury cases have increased.

Conclusion

We observed some positive epidemiological shifts observed during the pandemic year. Based on these, we need to implement further interventions to reduce the prevalence of morbidity and mortality, as well as preventive and mitigation-based policies for lower respiratory infections and injuries. Injuries and both lower and upper respiratory tract infections have declined in Mongolia but the increase of burn injury cases in February to March of 2020 might be due to the kindergartens and schools' closure.

Keywords

Mongolia, lockdown, outbreak, injury, burn