

Analysis of medical consultation condition by suicide attempters using DPC and claim data

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Summary:

In this study, we analyzed the health resource use before and after hospitalization of people who attempted suicide by overdosing based on the medical claim data.

Using medical claims (including DPC claims) from April 2013 to March 2021 in one local government in eastern Japan, we investigated the usage status of medical services before and after suicide attempts and the prevalence of major injuries and illnesses among patients who attempted suicide due to drug overdose. We identified patients who were admitted to general wards due to drug poisoning (DPC first 6 digits = 161070) from April 2014 to March 2020. Information about medical service utilization status (general ward admission, psychiatric ward admission, outpatient services), diagnosis of psychiatric illness, malignant tumors and dementia was collected from the claim data. In addition, quarterly changes in the number of visits to medical institutions and changes in the volume of prescription drugs (hypnotic sedatives, anxiolytics and psychiatric drugs) were analyzed before hospitalization.

As a result of the analysis, 79.1% of the patients had a diagnosis of mental illness at the time of their hospitalization. After 12 months from admission, 2.1% were admitted to general wards, 3.3% were admitted to psychiatric hospitals, and 52.4% used outpatient services. After 12 months, only 31.8% had a diagnosis of some kind of mental illness on their medical claim data. This result suggested that the follow-up system for the suicide attempt cases was inadequate. It was also found that the number of outpatient visits and the amount of prescriptions increased before hospitalization due to drug overdose. This increase was particularly pronounced among young women.

Based on the analysis results, we make the following recommendations for promoting suicide prevention.

- Assigning psychiatrists and enhancement of the psychiatric liaison system at hospitals providing emergency medical care
- Establishing a system for sharing psychiatric information for the purpose of suicide prevention
- Strengthening collaboration between health institutions and forming a network among them in order to prevent suicide deaths.