

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 service use before and after hospitalization of people who attempted suicide by overdosing using 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 (ICD 2 digits F0, F1, F2, F3, . . . , F9), malignant tumors, and dementia was collected from the claim data.

As a result of the analysis, 79.1% of the patients had a diagnosis of mental illness at the time of hospitalization. One month after admission, 15.8% were admitted to a psychiatric hospital. After 12 months, 2.1% were admitted to general wards, 3.3% were admitted to psychiatric wards, and 52.4% used outpatient visits. After 12 months, 31.8% had a diagnosis of some kind of mental illness in their medical claim data. The annual cumulative mortality rate was 3.8%. The usage of medical services showed the same trends when stratified by injury and disease and gender and age group.

Drug overdose is the most common cause of suicide attempts. The current analysis also revealed that 80% of patients hospitalized for drug overdose had some kind of mental illness. However, the results have suggested that the follow-up system for suicide attempt cases was inadequate.

Based on the analysis results, we will 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 medical institutions and forming a network among them for suicide prevention