Investigation of Suicide Risk by Real World Data Using Cohort Database Combining National Database of Health Insurance Claims and Unnatural Death Database in Hyogo Prefecture

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Summary:

Addressing the increase in suicide after the COVID-19 pandemic is an urgent issue, but suicide is an infrequent outcome and is difficult to observe through cohort studies. We will explore the characteristics of suicide cases before and after the COVID-19 pandemic, changes in background diseases, identification of predictive factors, and effective intervention methods using big data integrating medical and nursing care receipts and data from the Hyogo Prefectural Medical Examiner's Office. In FY2022, basic data for these analyses will be collected, and data on 12,000 cases of unusual deaths over a 20-year period will be extracted from the Hyogo Prefectural Medical Examiner's Office. We plan to use these data to conduct multivariate analyses adjusted for covariates using history of suicide attempts, history of emergency visits and hospitalizations, and death by suicide as outcomes, as well as interrupted time series analysis and difference-in-difference analysis to analyze changes in the frequency of the above outcomes before and after COVID-19. Survival time analyses are planned. In terms of pharmacoepidemiology, we will also identify drugs administered after COVID-19. By using a comprehensive database including at-risk populations, we hope to identify suicide risk and its evolution before and after the COVID-19 pandemic, explore intervention points and provide basic data for policy recommendations.