Clinical epidemiological and pharmacoepidemiological studies using the Diagnosis Procedure Combination database.

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With respect to study design, randomized control trials (RCT) are considered the gold standard in assessing the efficacy and safety for different medications. However, in addition to the issues of appropriateness, ethics, feasibility, time and costs in RCTs, the generalizability of the findings is argued because of the highly selected group of patients included in RCTs. Real-world studies using a large database, which consists of routinely collected clinical data, are complementary to RCTs in the sense that the patient populations are much more generalizable, and are becoming more common. Using the Diagnosis Procedure Combination (DPC) database, which is a nationwide database and covers approximately 50% of the acute-care inpatients in Japan, we conducted a retrospective cohort study evaluating the efficacy of several drugs including Japanese herbal Kampo medicine. Propensity score utilizing methods were adopted in these studies. Examples of our studies using the DPC database will be presented and the advantages and limitations of the studies will be discussed.