Screening adverse drug reactions using the French large observational health care database SNIIRAM

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Résumé

With the increased availability of large electronic health records (EHRs) databases comes the opportunity of enhancing health risks screening. We try to improve adverse drug reaction (ADR) detection, which mostly relies today on spontaneous reports. Challenges are twofold: the data scale requires specific hardware andsoftware, as well as new statistical models. To address these issues, we propose a data pipeline based on Apache Spark, and we develop a scalable longitudinal model to estimate the effect of multiple longitudinal feature(drug exposures) on a rare longitudinal outcome.

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