R package for analyzing adverse drug reactions in FDA database: Evaluation of Amyotrophic lateral sclerosis (ALS) patients adverse drug reactions

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Abstract

The package faersexplorer for R programming language provides easy access and analysis to FDA Adverse Event Report System (FAERS) database. This database contains information on the reported Adverse Drug Events (ADRs) in the United States since 2004. The available data format in FDA website is in XML or ASCII format, and therefore, the users need to be familiar with creation of relational databases. This package allows the reading of these files and transform them into tabular format, in order to be analyzed . To explain this R package potential, a step-by-step analysis of reported ADRs from ALS patients is presented. Analysis by sex, age, year of report and reporter (consumer vs healthcare workers) was conducted. This analysis provides information to better manage drug safety concerns of ALS patients.
Keywords : Statistics – Pharmacology – Adverse Drug Reactions – Package - ALS

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