

Measuring Concordance of Drug Class-to-Class Comparison Between Observational Data and the FAERS Data

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Abstract

The 2019 LEGEND-HTN study examined the comparative safety and effectiveness of drug classes commonly used as first-line antihypertension therapies. To do so, the authors examined claims data and electronic health records across nine observational databases. Among other conclusions, the study found thiazide diuretics demonstrate better effectiveness and cause fewer side effects than ACE inhibitors. The objective of this study is to assess the concordance of the LEGEND study's findings and a similar analysis applied to FAERS. In particular, by taking the significant results from the LEGEND-HTN as positive controls and non-significant results as negative controls, we computed class-to-class disproportionality statistics across outcomes of interest using the FAERS data and assessed whether the subsequent conclusions agreed with that of the LEGEND-HTN study. Our analyses showed a large degree of concordance between the data sources and methodologies.