Identifying potential drugs causing side effect as well as the applicability and feasibility of a prediction model across six different hospital databases.

**METHODS**
We used two prediction models which were developed using Patient-Level Prediction (PLP) framework provided by Observational Health Data Sciences and Informatics (OHDSI).

**RESULTS**
The generalized area under the receiver operating characteristic curve (AUROC) of drugs causing hepatotoxicity and nephrotoxicity was more than 0.6, having high performances. To illustrate, celecoxib was significantly effective in causing both hepatotoxicity and nephrotoxicity.

**CONCLUSION**
This comprehensive study indicated some of potential drugs which resulted in hepatotoxicity and nephrotoxicity as well as the applicability and feasibility of a prediction model across six different hospital databases.