Abstract

Paper based-prescriptions that are not entered electronically in Egyptian public clinics lead to
loss the opportunity of association investigation among prescribed medications, track improper
prescriptions and handle patient health record. Developing electronic prescription service can
assign a positive impact in such case.

In this paper, performing data mining on data collected from paper based- prescriptions ordered
by the prescriber and entered electronically as data set to analyze the associations among
prescribed medications. Eleven association rules were resulted from the assigned prescribed
medication in those prescriptions using the FP-Growth (frequent pattern) algorithm. The
accuracy of these rules was reviewed by a clinical pharmacist. Among these association rules,
Julmentin 1gm and Allergyl tabs are the most associated medications resulted as first ranked
then Pirafene syrup and Julmentin 1gm resulted as second ranked. The results of this study
indicate that developing electronic prescription service can lead to significant knowledge in
prescribing patterns.
References


Index Terms

Computer Science Biomedical
Keywords

Data Mining, Association Rules, FP-growth method, e–prescription service, prescribing errors, clinical pharmacist, Egypt