

# **Abstract**

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## **Using Association Rule Mining to Detect Adverse Drug Events**

Improving safety for patients is a top priority in health care. However, adverse drug events (ADEs) are estimated to account up to 5% annually of hospitalized patients causing morbidity and mortality. Due to the availability of large amount of medical data, discovering ADE patterns using data mining (DM) techniques becomes a challenge. This paper proposes a framework to mine a large database containing data about previously prescribed drugs and their adverse outcomes. This mining process yield association rules necessary to detect ADEs in future prescription. In addition, an Adverse Drug Events Detection Tool (ADEDT) is built to help physicians detect ADE during drug prescription phase.