A SURVEY ON RISK ESTIMATION OF DIABETES MELLITUS USING ASSOCIATION RULE MINING

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ABSTRACT

Diabetes Mellitus is considered to be one of the dangerous and life-long health conditions that affect billions of people all around the globe. Early detection and prevention of this disease is of utmost importance in order to lessen the risk of getting affected by it. An Electronic Medical Record [EMR] with various health parameters, for diabetes mellitus, of various patients, uploaded by a registered medical laboratory is subjected to association rule mining, for that an efficient Association Rule Mining algorithm known as Apriori algorithm is used. The obtained association rules are subjected to distributional association rule mining, which separates affected and unaffected sub-population in order to further reduce the number of rules. Then among that statistically significant rules are selected based on a significant threshold. Then, for summarizing the obtained rules, four summarizations techniques named BUS algorithm, top-k algorithm, APRx Collection and RP Global Clustering is used.

KEYWORDS: Association Rule Mining, Apriori Algorith, BUS Algorithm