

## Documents

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**Endorsement of small patients population study through data mining classification: Significance to manifest drug interaction study of cardiovascular dosage formulation**

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**Abstract**

Objective: A simple, sensitive, precise computational classifiers justifies the positive indication of drug interaction through statistical validation and confirms for further root level investigation.

Methods: The blood pressure (BP) & Lipid profile valued data sheet was prepared from 100 patients those were chronically treating with cardiovascular formulation consisting Atorvastatin 10mg + Olmesartan 20mg. The data sheet contains 100 patients with 10 variables and final decision attributes of working & non-working. Then, with the operation of seven different related classifier the details of % of accuracy by class, correct & incorrect classified instance and stratified cross-validation were estimated. Those statistical results of classifiers were compared, correlate and interpreted to bring a fixed conclusion based on it.

Results: The % of accuracy for all classifiers results commonly 95.9596%, 93.9394% and 96.9697% and inter-dependency class attributes denoting by a = NW & b = W Matrix values are 84 | 11, 84 | 9, 87 | 9 respectively. Thus, the accuracy is excellent covering within the limits of ( $\pm 15\%$ ) as a correct classified instance.

Conclusion: Statistical computation on less populated patients through classifiers, eventually confirms the drug-interaction profile of collected data through data mining process. So that, it can proceed further upto root level through instrumental bioanalysis.

**Author Keywords**

Computational statistical analysis; Data mining process; Physio-chemical patients data; Seven Classifiers

**Index Keywords**

atorvastatin, high density lipoprotein, low density lipoprotein, olmesartan, triacylglycerol, very low density lipoprotein; accuracy, Article, biochemistry, blood pressure, cardiovascular disease, cholesterol blood level, data mining, decision making, human, major clinical study, patient coding, physiology, population research, prospective study, statistical analysis, validation study, work

**Chemicals/CAS**

atorvastatin, 134523-00-5, 134523-03-8; olmesartan, 144689-63-4

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