# Identified and Characteristics Analysis of Drug-related Problems: Pharmaceutical Care to Cardiovascular Patients in china

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# Abstract

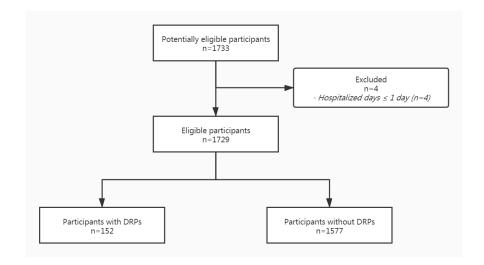
Aim: Cardiovascular patients have a high risk for Drug-related problems(DRPs), however studies the prevalence and risk factor for these patients in china are still unkown. This study was conducted to identify characteristics and risk factors associated with DRPs of cardiovascular patients in China, and assess the effectiveness of pharmaceutical practice. Methods: This was a retrospective study in a cardiology department of an academic teaching hospital for 12 months. A total of 1729 patients were enrolled. Pharmaceutical care was implemented by a pharmacy team. Drug-related problems were categorized by the Pharmaceutical Care Network Europe(PCNE) classification V9.1. Main outcome measure were the prevalence, characteristics and risk factors of drug-related problems. Results: During this study, 203 DRPs were found in 152(8.8%) patients,204 intervention, the success rate of intervention was 99.0%. Hospitalized days [?] 8.5(OR=1.925,95% CI:1.363-2.717) had a better sensitivity and specificity in predicting the occurrence of drug-related problems, compared with patient age and number of concomitant diseases. The most common type of drug-related problems was "Effect of drug treatment not optimal" (34.5%), "patient transfer related" was the primary cause of drug-related problems (35.3%). Among the top medications associated with drug-related problems were Auxiliary medications (20.2%) followed by antianginal medications (17.2%), Antiplatelet agents (11.8%), and  $\beta$ -Adrenergic receptor antagonists (11.8%). Conclusion: Drug-related problems are relatively common in hospitalized cardiovascular patients in China, "patient transfer related" is the primary cause and "Hospitalized days" is the major risk factors for these patients. Pharmacist intervention can identify and resolve pertinent drug-related problems to optimize medication therapy.

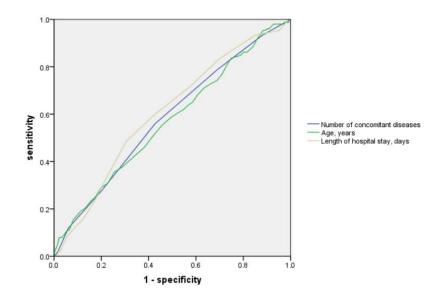
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