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Analysis of prevalence, risk factors, and potential costs of unnecessary drug therapy in patients with chronic diseases at the outpatient setting.

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Abstract: BACKGROUND: Patients with chronic diseases require long-term use of medications and are at risk for prescription of unnecessary drugs. OBJECTIVE: To determine the prevalence, risk factors, and costs associated with unnecessary drugs in patients with chronic diseases at outpatient settings. METHODS: Clinical and demographic data, unnecessary drug therapy and prices of drugs were obtained from 2,677 patients from the outpatient setting of six major hospitals in Jordan. Multivariate logistic regression was used to determine risk factors associated with unnecessary drug therapy. RESULTS: A total of 936 unnecessary medications were identified with an average of one unnecessary medication per every three patients. Monthly costs of unnecessary medications, at the national level, were estimated to range between JD 438,930.24 [(618,821.41 USD) (payer's perspective)] and JD 744,765.5 [(1,050,000.19 USD) (patient's perspective)]. Unnecessary drug was associated with cardiac catheterization (adjusted odds ratio [AOR] = 1.29, 95% CI: 1.01-1.71, p = 0.041), increased number of medications (AOR = 3.11, 95% CI: 2.51-3.86, p < 0.001), and inadequate knowledge/understanding of drug use (AOR = 2.4, 95% CI: 1.24-4.64, p = 0.009). CONCLUSION: Unnecessary drug therapy is common in the outpatient setting. Identified risk factors should be specifically targeted to reduce its burden.