Background and importance

 Drug-related problems (DRPs) are a common reason for visiting the emergency departments (ED).

 The information available on risk factors associated with new ED visits based on the patient’s pharmacotherapy is limited.

 Objective: To develop a predictive model of the risk of revisiting the ED at 30 days based on patients’ comorbidities, incomes and pharmacotherapy at discharge.

 Methods

 Effect of polypharmacy over revisits:

 - Osmotic laxative: 1.42(1.26-1.59)
 - B-lactams: 1.33(1.12-1.58)
 - Potassium-sparing: 1.28 (1.25-1.31)
 - Heparins: 1.15 (1.11-1.19)
 - Digoxin: 1.14 (1.01-1.31)

 Area under curve receiving operating characteristics (AUCROC):

 - Development sample: 0.648 (CI95%: 0.646-0.650)
 - Validation sample: 0.647 (0.644-0.649).

 Three 30-day revisit risk categories were generated:

 Conclusions

 The DRP-score identifies patients at high risk of returning to the ED within 30 days based on pharmacotherapy, being a useful tool for prioritizing interventions from these units.