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Generalization of the POISE and Mangano Studies on Beta-Blocker Use in the Perioperative Period

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Objective: To revise the indications and contraindications related to the prescription of beta-blockers for the perioperative period at a preoperative clinic, according to POISE (PeriOperative ISchemic study Evaluation) and Mangano's criteria.

Methods: This retrospective cohort study included all patients evaluated at an internal medicine preoperative clinic between November 2005 and November 2006 who were undergoing an elective surgery necessitating hospitalization of more than 1 day. We recorded general characteristics of the patients and the surgeries, and all the data about the inclusion and exclusion criteria from the POISE and the Mangano studies. The data were analyzed with the chi-square test. We considered a P value of $< .05$ as statistically significant.

Results: A total of 949 patients were reviewed and 504 met inclusion criteria. According to Mangano's criteria, 396 (78.6%) patients had an indication but 187 (47.2%) of these had a contraindication to the prescription of a beta-blocker, for a total of 209 patients (41.5%) who should have received beta-blocker therapy according to these criteria. As for POISE criteria, 208 patients (41.3%) presented an indication, whereas 160 of them (76.6%) had a contraindication for the prescription of a beta-blocker or another exclusion criterion. Thus, according to POISE criteria, 48 (9.5%) were eligible for the administration of beta-blockers. A significant difference was shown in the number of subjects who could receive a beta-blocker according to Mangano's and POISE criteria (41.5% vs 9.5%; $P < .0001$).

Conclusion: The use of the POISE study criteria restricts the prescription of beta-blockers to a more restrained group of patients compared with Mangano's study criteria. The generalization of these 2 studies on the use of beta-blockers in the perioperative period is thus very different.