Identifying patients at risk for premature discontinuation of thienopyridine after coronary stent implantation.

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Abstract
We sought to identify patients at risk for premature discontinuation of thienopyridines and to develop a risk score for thienopyridine adherence after coronary stent implantation. Patients were prospectively included from December 2007 to March 2008. At 1-month follow-up, all patients were given the Morisky questionnaire and asked if they had stopped taking thienopyridines. Multivariate analysis identified predictors of thienopyridine discontinuation; points were assigned to each variable according to the odds ratios and the c-statistic of the score was calculated. Mean age of the 400 patients included was 61.0 ± 10.4 years; 66 patients (16.5%) stopped thienopyridines after 1 month. Reasons for discontinuation were cost (62%), lack of information (17%), and recommendation by another doctor to stop treatment (15%). Factors associated with discontinuation included unmarried status (odds ratio 2.48, p = 0.046), lack of private health insurance (odds ratio 4.68, p = 0.041), acute coronary syndrome (odds ratio 2.31, p = 0.004), nondiabetics (odds ratio 2.20, p = 0.041), and patients who earned <2 times (odds ratio 8.23, p <0.001) and 2 to 3 times (odds ratio 4.46, p = 0.021) the minimum wage. Total risk score was 0 to 14 points and was strongly associated with thienopyridine discontinuation. For total scores of 0 to 4, 5 to 8, 9 to 12, and ≥13, 0%, 7%, 20%, and 37% of patients, respectively, stopped thienopyridines (c-statistic 0.76, p <0.0001). Risk score was also significantly associated with complete adherence as assessed by the Morisky questionnaire (c-statistic 0.74, p <0.001). In conclusion, we have identified patients at risk for premature discontinuation of thienopyridines using variables obtained before stent implantation and developed a risk score that accurately predicts premature thienopyridine discontinuation.

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