

Lower perception of pharmacological treatment increases risk of non-adherence to medication

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Background: A large proportion of patients fail to reach optimal adherence to medication following incident ischemic heart disease (IHD) despite ample evidence of the beneficial effect of medication. Non-adherence to medication increases risk of disease-related adverse outcomes but none has explored how perception about pharmacological treatment detail on non-adherence using register-based follow-up data.

Purpose: To investigate the association between patients' perception of pharmacological treatment and risk of non-initiation and non-adherence to medication in a population with incident IHD.

Methods: This cohort study followed 871 patients until 365 days after incident IHD. The study combined patient-reported survey data on perception about pharmacological treatment (categorised by 'To a high level', 'To some level', and 'To a lesser level') with register-based data on reimbursed prescription of cardiovascular medication (antithrombotics, statins, ACE-inhibitors/angiotensin receptor blockers, and β -blockers). Non-initiation was defined as no pick-up of medication in the first 180 days following incident IHD and analysed by Poisson regression. Two different measures evaluated non-adherence in patients initiating treatment: 1) proportion of days covered (PDC) analysed by Poisson regression, and 2) risk of discontinuation analysed by Cox proportional hazard regression. All analyses were adjusted for confounding variables (age, sex, ethnicity, income, educational level, civil status, occupation, Charlson comorbidity index, supportive relatives, and individual consultation in medication) identified by directed acyclic graph and obtained from national registers and the survey. Item non-response was handled by multiple imputation and item consistency was evaluated by McDonalds omega.

Results: Lower perceptions about pharmacological treatment was associated with increased risk of non-initiation and non-adherence to medication irrespectively of drug class and adherence measure in the multiple adjusted analyses (please see figure illustrating results on antithrombotics). A dose-response relationship was observed both at 180- and 365-days of follow-up, but the steepest decline in adherence differed when comparing the two adherence measures (results not shown). Moderate internal consistency was found for the summed measure of perception (McDonalds omega = 0.67).

Conclusion: Lower perception of pharmacological treatment was associated with subsequent non-initiation and non-adherence to medication, irrespectively of measurement method and drug class.

Abstract Figure. Figure: Multiple adjusted analyses

Antithrombotics

