Abstract: 1289

Association between cardiovascular medication and readmission in heart failure patients

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Introduction and purpose
Patients discharged after an admission for heart failure (HF) have a high risk of HF readmission. The aim of this
population-based cohort study was to compare hospital readmission rates of HF patients using additional HF
medication and/or non-HF cardiovascular (CV) medication versus patients not using the particular additional
HF medication and/or non-HF CV medication in a real-world scenario.

Methods and results
Medication at hospital discharge was determined on the basis of dispensing data from the Dutch PHARMO
Database Network including 22,476 patients with a diagnosis of HF between 2001 and 2015. Median follow-
up was 29.3 months. Thirty percent of patients were readmitted for HF. Propensity scores were calculated as a
proxy for comorbidities and hazard ratios were adjusted (HRadj) accordingly. The prescription of digoxin was
associated with a decreased readmission risk (HRadj 0.93; 95%CI 0.87-0.99), aspirin monotherapy with a
decreased risk (HRadj 0.90; 95%CI 0.85-0.95) and P2Y12 inhibitor monotherapy with an increased risk
(HRadj 1.26; 95%CI 1.07-1.49) and. The risks of readmission for statins, nitrates and amiodarone were all
significantly increased, with HRadj between 1.18 and 1.31.

Conclusion
Use of digoxin, added in selected HF patients on top of core HF medication according to the guidelines, was
associated with a lower risk of HF readmission. On account of the lower risk of HF readmission, aspirin
monotherapy should be preferred to P2Y12 inhibitor monotherapy. The risk of readmission for patients on
statins, nitrates and amiodarone is increased, compared to patients not prescribed these drugs.
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*HR versus non-use adjusted for age, gender, number of drugs (excl particular drug), year of admission, propensity score of particular medication (based on baseline covariates and co-medication)
DAPT: dual antiplatelet therapy (aspirin and P2Y12 inhibitor)
VitK combinations: vitamin K antagonist and (aspirin and/or P2Y12 inhibitor)
NOAC: non-vitamin K antagonist oral anticoagulant