NON-PERSISTENT USE OF ANTIHYPERTENSIVE DRUGS INCREASES RISK OF HOSPITALIZATIONS FOR STROKE BY NEARLY 20%

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OBJECTIVES: Low persistence with antihypertensive drug treatment (AHT) is expected to limit patient’s benefits in terms of a reduction of cardiovascular and cerebrovascular disease. This study investigated the relationship between persistence with antihypertensive drugs and the risk of stroke in clinical practice.

METHODS: From the PHARMO Record Linkage System comprising, among others, linked drug-dispensing and hospital records of >2 million inhabitants in The Netherlands, new users of AHT were identified in the period 1993–2002. Persistence with AHT was determined by summing the number of days of continuous treatment (gaps between dispensing of <60 days). Patients were classified as persistent if they remained on AHT for at least two years. The outcome of interest was the first hospital admission for stroke occurring two or more years after initiation of AHT therapy. Patients were classified as high, intermediate or low cardiovascular risk based on other cardiovascular drug use and hospitalizations during the first two years of follow-up.

RESULTS: The study included 98,485 patients of whom 16% were at high cardiovascular risk. About 50% (n = 48,548) of all patients were persistent with AHT for two years, and 2.1% (n = 2093) were hospitalized for stroke in the period of two or more years after initiation of AHT therapy. Multivariate analyses showed that non-persistent users of AHT had a 16%–19% increased risk for stroke compared to persistent users (Low/intermediate risk group RRad = 1.19, 95% CI: 1.07–1.32; high risk group RRad = 1.16, 95% CI: 0.97–1.39). CONCLUSION: In clinical practice antihypertensive drug treatment is used over too short a time interval to have maximum benefit from preventing stroke.

NON-PERSISTENT USE OF ANTIHYPERTENSIVE DRUGS INCREASES RISK OF HOSPITALIZATIONS FOR ACUTE MYOCARDIAL INFARCTION BY 10% IN PATIENTS WITH LOW OR INTERMEDIATE CARDIOVASCULAR RISK

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OBJECTIVES: Low persistence with antihypertensive drug treatment (AHT) may limit patient’s benefits in terms of a reduction of cardiovascular and cerebrovascular disease. This study investigated the relationship between persistence with antihypertensive drugs and the risk of acute myocardial infarction (AMI) in clinical practice.

METHODS: From the PHARMO record linkage system comprising, among others, linked drug-dispensing and hospital records of >2 million inhabitants in The Netherlands, new users of AHT were identified in the period 1993–2002. Persistence with AHT was determined by summing the number of days of continuous treatment (gaps between dispensings of <60 days). Persistent patients remained on AHT for two years. The outcome of interest was the first hospital admission for AMI occurring two or more years after initiation of AHT therapy. Patients were classified as high, intermediate or low cardiovascular risk based on other cardiovascular drug use and hospitalizations during the first two years of follow-up.

RESULTS: The study included 98,485 patients of whom 16% were at high cardiovascular risk. About 50% of all patients were persistent with AHT for two years and 1.5% was hospitalized for AMI in the period of two or more years after initiation of AHT. Multivariate analyses showed that non-persistent use of AHT increased the risk for AMI in the low/intermediate risk group (RRadj = 1.12; 95% CI: 0.99–1.28), but not in the high risk group (RRadj = 0.90; 95% CI: 0.73–1.10). CONCLUSION: In clinical practice antihypertensive drug treatment is used over too short a time interval to have maximum benefit for preventing AMI in patients with low or intermediate cardiovascular risk.

RELATIONSHIPS BETWEEN VENOUS THROMBOEMBOLIC (VTE) PROPHYLACTIC TREATMENTS AND VTE COMPLICATIONS OR THROMBOCYTOPENIA AND AMONG VETERANS RECEIVING TOTAL HIP REPLACEMENTS

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OBJECTIVES: To compare rates of venous thromboembolic (VTE) complications and thrombocytopenia by VTE prophylactic treatments, among Department of Veterans Affairs (VA) patients receiving total hip replacement (THR). METHODS: From the VA national databases, we identified all THR patients between March 2003 and March 2004. Using inpatient and outpatient data; we collected demographics, diagnoses, health care utilization, and VTE prophylactic strategies for each patient. We followed patients for 1 year post-surgery, applying diagnostic codes to identify VTE complications (deep vein thrombosis (DVT)), pulmonary embolism (PE), post-thrombotic syndrome (PTS), and thrombocytopenia. Using logistic regression; controlling for age, gender, obesity, congestive heart failure, and cancer; we compared VTE complications and thrombocytopenia by VTE prophylaxis (reference = enoxaparin alone).

RESULTS: We found 1722 THRs with VTE prophylaxis: enoxaparin = 1005 (58.4%), warfarin = 345 (20.0%), dalteparin = 205 (11.9%), and the combination of enoxaparin with warfarin (enox/warf) = 167 (9.7%). Respectively, patients experiencing VTE complications (chi square p < 0.001) were: 26 (2.6%), 22 (6.4%), 5 (2.4%), and 34 (20.4%) or suffering thrombocytopenia (chi square p = 0.177) were: 6 (0.5%), 3 (0.9%), 1 (0.5%), and 4 (2.4%). Logistic regression revealed significantly greater (p < 0.001) VTE complications (odds ratio, 95% confidence intervals) with enox/warf (9.9, 5.6–17.2) or warfarin alone (2.6, 1.5–4.7) versus enoxaparin alone. Significant covariates were age (p = 0.016) and cancer diagnosis (p = 0.018). Treatment with enox/warf was associated with significantly (p < 0.001) more PEs, 4.8% versus 0.5% (10.6, 3.7–33.6). Treatment with enox/warf or warfarin alone was associated with more (p < 0.001) DVTs, 17.4% versus 2.2% (9.4, 5.2–17.1) and 3.2% versus 2.2% (2.5, 1.3–4.8). There were no cases of PTS. Logistic regression results for thrombocytopenia were not significant (p = 0.174). CONCLUSION: Warfarin and enox/warf were significantly less effective VTE prophylactic strategies following THR than dalteparin or enoxaparin. Potential limitations include the non-controlled, observational design, inclusion of primarily male VA patients, and constraints inherent in national VA data.

RISK OF MYOPATHY ASSOCIATED WITH THE USE OF STATINS AND POTENTIALLY INTERACTING MEDICATIONS—A RETROSPECTIVE ANALYSIS

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METHODS: From the VA national databases, we identified all THR patients receiving total hip replacement (THR). METHODS: From the VA national databases, we identified all THR patients receiving total hip replacement (THR). RESULTS: From the VA national databases, we identified all THR patients receiving total hip replacement (THR). RESULTS: From the VA national databases, we identified all THR patients receiving total hip replacement (THR). RESULTS: From the VA national databases, we identified all THR patients receiving total hip replacement (THR).