Objectives: To evaluate an impact of risk-based delivered cardiac catheterization (followed by revascularization, when indicated) on long-term survival in real-world NSTE-ACS patient population. Methods: We conducted a retrospective cohort study of NSTE-ACS patients with first hospitalization for an event between 2003 and 2013 using data from the Cardiovacular Health Nova Scotia registry. Multivariate logistic regression models were fit to analyze the association between patient characteristics and received cardiac catheterization at any time during hospitalization. To optimally stratify the study population we used a risk algorithm, the Nova Scotia NSTE-ACS Long Term Mortality Risk Score. We analyzed the association between each risk category and the procedure receipt as well as one-year mortality, adjusting for gender, place of residence, type of hospital, and clinical practice guideline period. Results: The study included 25,463 NSTE-ACS patients, those who received and who did not receive cardiac catheterization. Older age (>75 years) or prior comorbidities such as congestive heart failure, stroke, and renal insufficiency were significantly associated with decreased odds of receiving cardiac catheterization at any time during hospitalization. When stratified by risk, adjusted models indicated that higher-risk groups were significantly less likely to receive cardiac catheterization during hospitalization compared to low-risk patients (OR high-risk 0.31, 95% CI 0.27-0.34; OR very high-risk 0.31, 95% CI 0.10-0.13), while the reduction in the odds of one-year mortality was greatest for higher-risk (OR high risk 0.18, 95% CI 0.16-0.22; OR very high risk 0.20, 95% CI 0.17-0.24) compared to their low risk counterparts. Conclusions: The largest reduction in risk of one-year mortality was observed in higher-risk NSTE-ACS patients receiving cardiac catheterization at any time during hospitalization however, they were significantly less likely to receive the procedure compared to low-risk patients. Regular practice monitoring and outcomes reporting to a sustainable public-private partnership has a potential to improve NSTE-ACS patient outcomes.

Cardiovascular Disorders - Health Technology Assessment

PCV91 CAN DISPARITIES BETWEEN HEALTH TECHNOLOGY APPRAISAL (HTA) DECISIONS RESULT IN INEQUITABLE ACCESS TO TREATMENT? THE CASE OF NOVEL ORAL ANTICOAGULANTS (NOACS) IN THE PREVENTION OF STROKE IN NON-VALVULAR ATRIAL FIBRILLATION (NVAF) Soualmi R, 1 Derki S, 1 Bengalouze A, 2 Yahaha A, 1 Yildiz L, 4 Cheynel J, 1
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Objectives: HTA is based on either clinical and/or economic evaluations. Evaluation criteria are usually similar, however clear differences in conclusions and recommendations sometimes exist between health agencies. This study aims to evaluate disparities between HTA decisions for NOACs in the prevention of stroke and systemic embolism in NVAF patients. Methods: NOAC HTA reports were reviewed and evaluated for Australia, Canada, France, the Netherlands, Spain, Sweden and the UK. Based on available data for dabigatran, rivaroxaban and apixaban, NICE, SMC, CADTH, PBAC and HAS were selected. Their evaluations were appraised using the Drummond checklist with additional considerations from AHRQ and INHTA recommendations. Results: NICE assessed the three NOACs in 2012-13. Compared to warfarin, all were deemed cost-effective, with ICERs below £20,000 to £30,000 per QALY gained. Similarly, SMC and CADTH accepted all three molecules between 2011 and 2013. PBAC issued a positive opinion on dabigatran, leading to reimbursement in 2011. In 2012, clinical uncertainties in the cost-utility analysis were initially noted for rivaroxaban, questioning its superiority over warfarin. Apixaban was also first rejected, mostly because of uncertainty around a potentially unacceptable-high ICER. Both were eventually reimbursed in 2013 under risk-sharing agreements. Unlike other agencies, HAS recommended NOACs in second line after VKA, because no other antidotes were available and anticoagulation monitoring was problematic. Dabigatran was assessed in 2008; apixaban and rivaroxaban followed in 2012, all with an SMR as "important". In 2014, HAS revised dabigatran’s SMR to "moderate" because the balance between efficacy and safety events was deemed “averag”. The decision was eventually upheld in 2018 in its latest “efficacy notice”. Consequently, NOACs are less accessible to French patients, and with different degrees of reimbursement in France. Under oxidative stress conditions, hydroxyl radicals can oxidize the phenyl ring of phenylalanine (Phe), which then produces various abnormal tyrosine (Tyr) isomers. Conclusions: The data show that NOACs are less accessible to French patients, and with different degrees of reimbursement. The clinical practice guideline period is an important driver in predicting AC. Other drivers include international comparisons, cost-effectiveness and evidence gaps. A systematic literature review was conducted to update the review published by Lopez-Lopez et al. A NMA was developed in a Bayesian framework using WinBUGS1.4.3. Minimally informative prior distributions were placed on all parameters. A fixed effect network meta-analysis was fitted assuming a binomial likelihood and logit link. Subgroup analyses were performed in a population defined by baseline stroke risk stratification according to CHADS2 score. Results: 44 publications were included, comprising 24 primary and 20 secondary publications for 4 trials. In the overall trial population and sub-group based on baseline CHADS2 score, DOACs were at least as effective as warfarin in reducing the risk of stroke and systemic embolism but the evidence did not suggest any individual DOAC was the most effective. However, in the overall trial population and CHADS2 subgroup, for major bleeding, the evidence suggested only edoxaban (overall population: OR 0.79, 95% CI 0.70-0.89; subgroup: OR 0.79, 95% CI 0.70-0.88) and apixaban (overall population: Odds Ratio (OR) 0.70, 95% CI 0.61-0.81; subgroup OR, 0.73, 95% CI 0.62-0.87) were superior to warfarin and to the other DOACs, dabigatran and rivaroxaban. Conclusions: Our analyses suggest that in a clinically relevant NVAF population, defined by CHADS2 score, DOACs are similar on clinical outcomes and that edoxaban and apixaban are superior to warfarin and the other DOACs on major bleeding.

Cardiovascular Disorders - Patient-Centered Research

PCV95 COMPARATIVE EFFECTIVENESS OF DIRECT ORAL ANTICOAGULANTS FOR STROKE PREVENTION IN NON-VALVULAR ATRIAL FIBRILLATION Owen RK,1 Morris J,2 Le Reun C,3 Farooqui U,1 Clifton D,4 Groves L,2 Tsang C,2 Bakhai A,5 Gordon J,3 Sainte-Anne, GP, France, 2Daichi Sankyo, Uxbridge, UK.
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Background: Indirect Treatment Comparisons (ITC) have been published on the comparative effectiveness of direct oral anticoagulants (DOACs) for stroke prevention in non-valvular atrial fibrillation (NVAF). Network Meta-Analysis (NMA) has focused on comparisons in overall trial populations, despite known differences in patient characteristics across treatments. Patients in routine NHS practice typically receive a DOAC conditional on baseline risk. Objectives: The study objective was to explore the comparative effectiveness of DOACs for stroke or systemic embolism prevention and major bleeding in a clinically relevant NVAF population. Methods: A systematic literature review was conducted to update the review published by Lopez-Lopez et al. A NMA was developed in a Bayesian framework using WinBUGS1.4.3. Minimally informative prior distributions were placed on all parameters. A fixed effect network meta-analysis was fitted assuming a binomial likelihood and logit link. Subgroup analyses were performed in a population defined by baseline stroke risk stratification according to CHADS2 score. Results: 44 publications were included, comprising 24 primary and 20 secondary publications for 4 trials. In the overall trial population and sub-group based on baseline CHADS2 score, DOACs were at least as effective as warfarin in reducing the risk of stroke and systemic embolism but the evidence did not suggest any individual DOAC was the most effective. However, in the overall trial population and CHADS2 subgroup, for major bleeding, the evidence suggested only edoxaban (overall population: OR 0.79, 95% CI 0.70-0.89; subgroup: OR 0.79, 95% CI 0.70-0.88) and apixaban (overall population: Odds Ratio (OR) 0.70, 95% CI 0.61-0.81; subgroup OR, 0.73, 95% CI 0.62-0.87) were superior to warfarin and to the other DOACs, dabigatran and rivaroxaban. Conclusions: Our analyses suggest that in a clinically relevant NVAF population, defined by CHADS2 score, DOACs are similar on clinical outcomes and that edoxaban and apixaban are superior to warfarin and the other DOACs on major bleeding.