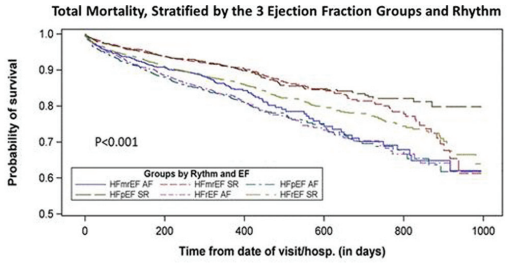
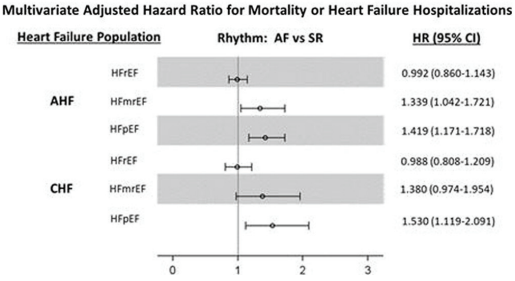
sentations of patients with HFrEF, AF was not associated with worse outcomes in a multivariable adjusted model (Figure).





Conclusions: The prevalence of AF increases with increasing EF. AF was associated with increased all-cause mortality only in HFpEF and with HF hospitalizations only in HFpEF and HFmrEF populations. With higher EF, AF may contribute to progression of HF and worsen outcomes, whereas with lower EF, AF may be more of a bystander, where HF itself and its severity determines outcomes.
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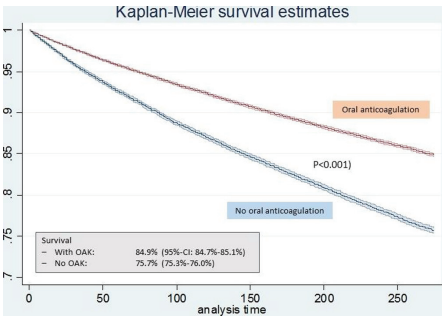
Oral anticoagulation in heart failure complicated by atrial fibrillation in routine data

M. Moeckel[1], H.T. Baberg[2], P. Dirschedl[3], B. Levenson[4], J. Malzahn[5], T. Mansky[6], C.H. Guenster[7], E. Jeschke[7]. *[1]Charité - Universitätsmedizin Berlin, Berlin, Germany; [2]Helios Clinic Berlin-Buch, Berlin, Germany; [3]Medical Service of the Health Funds (MDK), Lahr, Germany; [4]Cardiac Catheterization Laboratory - St. Gertrauden Hospital, Berlin, Germany; [5]Federal Association of the Local Health Care Funds (AOK), Berlin, Germany; [6]Technische Universitaet Berlin, Berlin, Germany; [7]Research Institute of the Local Health Care Funds (WIdO), Berlin, Germany*

Background: Atrial fibrillation is common in patients with heart failure (HF). Oral anticoagulation (OAK) is strongly recommended in most of these patients by current guidelines.
Objective: We tested the hypothesis that in routine data the use of OAK leads to a favourable outcome and explored the impact of NOAKs.
Methods: The AOK provides nationwide health care insurance for approximately 30% of the German population and is the largest provider of statutory health care insurance in Germany.
We included anonymous data from all patients with a claims record for hospitalization with the main diagnosis of heart failure (HF) and atrial fibrillation from 2013–2015. Patients with hospitalization for HF in the previous year were excluded. We analysed mortality and readmission for any cause and stroke or ICB within 91–365 days after the index hospitalization. Information about the medications was taken from the pharmacy database. Kaplan-Meier survival curves and a multiple Cox regression model were used to evaluate the impact of medication on outcome. Adjusted Hazard ratios (HRs) and 95% confidence intervals (95% CIs) were calculated. Patient age, sex, and comorbidities were included as independent factors including all variables of the CHA2DS2-VASc score.
Results: We included n=165.923 cases. Median age was 80 years (IQR 75–85), 56.4% were female. We found use of OAK in 67.5% (Vit. K antagonists (VKA) 39.6%, direct FXa-inhibitors (FXaI) 28%, direct thrombin-inhibitor (DTI) 4.5%). Most patients had a CHA2DS2-VASc score ≥2 (96,82%). The total mortality rate was 18%, readmission rate was 29.2% and stroke or ICB occurred in 1.8% of the cases. The risk of death was lower with the use of any OAK (see figure). Adjusted HR = 0.71 (95%-CI 0.69–0.73). The various anticoagulants had no significantly different effect: VKA, HR = 0.67 (0.65–0.69); FXaI, HR = 0.72 (0.68–0.78); DTI, HR = 0.74 (0.72–0.76). There was no significant effect on the total readmission rate, but readmission for stroke/ICB was lower with OAK: HR = 0.73 (0.66–0.78).
Conclusions: Routine data confirm the beneficial effect of oral anticoagulation in patients with heart failure complicated by atrial fibrillation. There are no additional benefits regarding mortality and readmission rate with the use of NOAKs.



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Ablation for atrial fibrillation with heart failure should be performed early a nationwide study

J.L. Pallisgaard[1], A.-M. Schjerning[2], M.L. Hansen[3], A. Johannessen[3], F. Gustafsson[4], G.H. Gislason[3], C. Torp-Pedersen[5], P.K. Jacobsen[4], S.L. Kristensen[1], L. Koeber[4], M. Schou[2]. *[1]Bispebjerg Hospital, Cardiology, Copenhagen, Denmark; [2]Herlev Hospital - Copenhagen University Hospital, Cardiology, Copenhagen, Denmark; [3]Gentofte University Hospital, Cardiology, Copenhagen, Denmark; [4]Rigshospitalet - Copenhagen University Hospital, Cardiology, Copenhagen, Denmark; [5]Aalborg University Hospital, Cardiology and Epidemiology, Aalborg, Denmark*

Background: Small randomized controlled trials have suggested a favorable outcome after ablation of atrial fibrillation (AF) in patients with heart failure (HF). The extent of usage of ablation and associated outcomes in a large real world cohort of patients with AF and HF is unknown.
Purpose: The purpose of this study was to investigate effects and referral patterns of ablation in HF patients with AF.
Methods and results: Through the nationwide Danish registers, all patients with AF and HF from January 1st 2005 to April 1st 2017 were registered (n=72,592). In total 1,103 (1.5%) were referred for ablation during the 12 years follow up period and with a cumulative incidence of 9.5% in patients below 65 years compared to 2.0% to patients between 65 and 75 years, and 0.0% above 75 years. In the study period, a total of 7,779 patients underwent first time ablation for AF of whom 1,267 (16.3%) had HF. No difference was found in the six year cumulative risk of the composite event of admission with AF or cardioversion after ablation with 61% in patients with HF versus 57% patients without HF (p-value = 0.067). The risk of the composite endpoint of admission with AF or cardioversion was significantly lower in HF patients with AF duration <2 years days compared to HF patients with AF duration >2 years (p-value <0.001) (Figure 1). All composite endpoints were identified after a three month blanking period from the date of ablation.

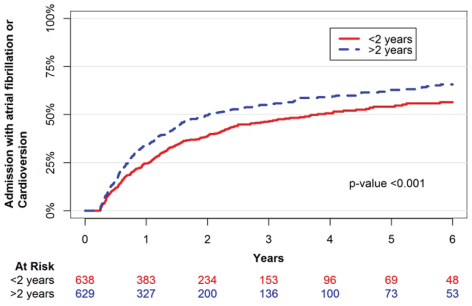

Figure 1

Conclusions: In a real world cohort 1.5% of HF patients with concomitant AF were referred for ablation and the referral rate decreases markedly with advancing age. Early referral to ablation was associated with a decreased risk of a readmission for AF or cardioversion in patients with HF.

HEART FAILURE: THE NEMESIS OF DIABETES

3380
Development of heart failure in type 2 diabetes: ischemic heart disease, end stage renal disease or hypertension and diabetes? A nationwide cohort study

M.E. Malik[1], C.M. Rasmussen[1], M.D. Diederichsen[1], M. Schou[2], G. Gislason[1], C. Torp-Pedersen[1], F. Gustafsson[3], C. Kistorp[2], L. Koeber[3], R. Rorth[3]. *[1]Gentofte University Hospital, Copenhagen, Denmark; [2]Herlev Hospital - Copenhagen University Hospital, Copenhagen, Denmark; [3]Rigshospitalet - Copenhagen University Hospital, Copenhagen, Denmark*

Background: Heart failure (HF) is an overlooked challenge in the care of type 2 diabetes (T2D). However, due to randomized trials evaluating sodium glucose co-transporter (SGLT2) inhibitors, HF in T2D is now gaining interest. Little is known about how T2D patients develop HF and the proportion of patients developing ischemic heart disease (IHD) and end stage renal disease (ESRD) prior to developing HF is unknown.