

## P3724

### Impact of chronic kidney disease on efficacy and safety of interventional left atrial appendage closure – results from the prospective multicenter LAARGE registry

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**Background:** The interventional left atrial appendage closure (LAAC) is an effective and safe alternative to standard oral anticoagulation (OAC) for stroke prevention in atrial fibrillation (AF) patients with contraindications for long-term OAC. Chronic kidney disease (CKD) has a high prevalence among AF patients, and was shown to increase the number of periprocedural complications in cardiac interventions.

**Purpose:** This subanalysis of the LAARGE registry aimed to investigate CKD's impact on outcomes after LAAC.

**Methods:** This prospective, real-world LAAC registry included 625 patients with documented renal function from 37 German centers between April 2014 and January 2016. CKD was defined by an eGFR <60 mL/min/1.73 m<sup>2</sup>. Procedure was conducted with different LAAC devices considering the relevant recommendations. Baseline characteristics, procedural data, intra-hospital and one-year follow-up outcome were registered for CKD and non-CKD patients stratified by the different CKD stages.

**Results:** CKD patients (n=300; 48.0%) had a more pronounced cardiovascular risk profile, a higher stroke (CHA2DS2-VASc score 4.9±1.5 vs. 4.2±1.5; p<0.001) and bleeding risk (HAS-BLED score 4.3±1.0 vs. 3.5±1.0; p<0.001), and had experienced more prior bleedings (83.7 vs.

76.3%; p=0.022). Implantation success was similarly high between both groups (97.9%; p=n.s.). In CKD patients, MACCE during one-year follow-up was more frequent (18.1 vs. 6.8%; p<0.001) mainly being triggered by all-cause deaths, but in-hospital MACCE was not (0.3 vs. 0.3%; p=n.s.). Kaplan-Meier estimation showed a lower one-year survival among CKD patients (82.4 vs. 94.4%; p<0.001) without significant accentuation in patients with advanced CKD (i.e., <30 mL/min/1.73 m<sup>2</sup>; p=n.s. to other CKD patients). While annual rate of device associated complications (2.6 vs. 2.8%; p=n.s.) and strokes (0 vs. 1.0%; p=n.s.) was comparable during follow-up, annual severe bleeding rate was higher in CKD patients (2.6 vs. 0.3%; p=0.027) which was 71.4 and 94.4% less than expected from the HAS-BLED score (p<0.01 for the comparison to the estimated risks, but no significant interaction between groups).

**Conclusions:** Despite an increased cardiovascular risk profile of CKD patients, device implantation was safe, and annual stroke rate was statistically indifferent to non-CKD patients across all CKD stages after LAAC. Moreover, a substantial reduction of annual stroke and major bleeding risk was observed, as compared to the estimated annual risk.