Objective(s): This study aimed to compare secondary intervention rates for arteriovenous access in end stage renal disease patients with pacemakers placed on the ipsilateral versus contralateral side of the fistula or graft.

Methods: All patients who had a fistula or graft placed on the ipsilateral or contralateral side as a pacemaker were included. Data was collected retrospectively from a single institution database from 2008 to 2017. Data points included demographics, number of secondary interventions specifically thrombectomy, percutaneous transluminal angioplasty rates (PTA), and stent placement, time to first intervention and failure of the fistula or graft.

Results: Over the 9 year study period, 32 patients were identified had a pacemaker and arteriovenous access. Twenty patients had arteriovenous access and a pacemaker placed on the contralateral side. The average age of this cohort was 67 years (range 44-83). Females comprised 50% (10) of the group. 50% (10) of patients underwent a secondary intervention: 50% (10) had PTA and 20% (2) had stents placed. There were 36 PTAs performed in 10 patients with an
average of 3.6 PTA per patients (range 1-12). The average time to first PTA was 19.5 months (range 2-44). Twelve patients had arteriovenous access and a pacemaker placed on an ipsilateral side. The average age of this group was 69 years (range 59-85). Females comprised 83% (10) of the group. 75% (9) of patients underwent a secondary intervention: 75% (9) had PTA and 33% (3) had stents placed. There were 25 PTAs performed in 9 patients with an average of 2.8 PTA per patients (range 1-6). The average time to first PTA was 9.5 months (range 1-27). In comparing the ipsilateral versus contralateral cohorts, there was no difference in demographics or gender. There was no difference in intervention rates between ipsilateral and contralateral patients however the time to intervention was significantly increased in patients who had arteriovenous access on the contralateral side to their pacemaker (9.5 months versus 19.5 months).

Conclusions: This study indicates that rates of secondary intervention are similar regardless of whether arteriovenous access is placed on the ipsilateral or contralateral side as a pacemaker however the time to first intervention is significantly increased in patients who have contralateral placement.

Author Disclosure Block: