

## RESEARCH:

### Safety and Feasibility of Same-Day Discharge after Left Atrial Appendage Closure with the WATCHMAN Device

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**Background:** As the use of left atrial appendage closure (LAAC) becomes more widespread, improvements in resource utilization and cost-effectiveness are necessary. Currently, there are limited data on same-day discharge (SDD) after LAAC. We aimed to evaluate the safety and feasibility of SDD versus non-SDD in patients with non-valvular atrial fibrillation who underwent LAAC.

**Methods:** We retrospectively studied 211 patients who underwent the WATCHMAN procedure in a tertiary hospital (June 2016 - June 2019). The primary safety outcome was the composite of stroke, systemic embolism, major bleeding requiring transfusion, vascular complications requiring endovascular intervention, or death through 7 days (periprocedural) and 45 days post-procedure. The secondary outcomes were the individual components of the primary outcome and all-cause readmission. We compared the clinical outcomes of patients who had SDD and non-SDD post-procedure.

**Results:** Patients with procedure-related complications on the day of LAAC, and patients who were admitted for acute clinical events prior to LAAC were excluded. 190 patients were included in the final analysis. 72/190 (38%) patients had SDD, and 118/190 (62%) had non-SDD. There were no statistically significant differences in the primary safety outcome through 7 days (1.4% vs. 5.9%,  $p = 0.26$ ) and 45 days post-procedure (2.8% vs. 9.3%,  $p = 0.14$ ) between the two groups. The secondary outcomes were similar in both groups. No patients had device-related thrombus on transesophageal echocardiography at 45 days. Only one patient from the non-SDD group had clinically significant peri-device flow (>5mm) at 45 days.

**Conclusions:** In a selected cohort of patients who underwent successful elective LAAC with WATCHMAN without same-day procedure-related complications, the primary safety outcome and secondary outcomes through 7 days and 45 days post-procedure were similar in the SDD and non-SDD groups. Our findings are hypothesis-generating and warrant further investigations in prospective trials.