Is Same Day Discharge After Catheter Ablation for Atrial Fibrillation Safe?

Sonal A. Patel, MMS, PA-C; Julie A. Merz; Jillian Hanifin, RN; Henry D. Huang, MD; Timothy Larsen, DO; Jeremiah Wasserlauf, MD; Parikshit S. Sharma, MD, MPH
Rush University Medical Center, Chicago, Illinois

BACKGROUND

- The COVID-19 pandemic impacted hospital capacity which adversely affected bed availability among patients undergoing AF ablation.
- The Electrophysiology (EP) department at Rush modified the discharge protocol for patients post AF ablation.
- The aim of the study was to **assess the impact of same day discharges (SDD) compared to next day discharges (NDD)** on length of stay (LOS) and 30- day post procedural complications**.**

METHODOLOGY

- A retrospective analysis of patients who had elective AF ablations Pre-COVID (January 1, 2019 to December 31, 2019) and Post-COVID (January 1, 2021 to December 31, 2021).
- Patients underwent **SDD** or were observed overnight with **NDD.**
- Data on LOS, procedural complications, ED visits, and hospitalizations within 30 days of discharge with SDD and NDD was collected.
- **Procedural complications included AV fistula, pseudoaneurysm, hematoma (BARC Type 3), DVT, pericardial effusion or tamponade, and CVA or TIA**.

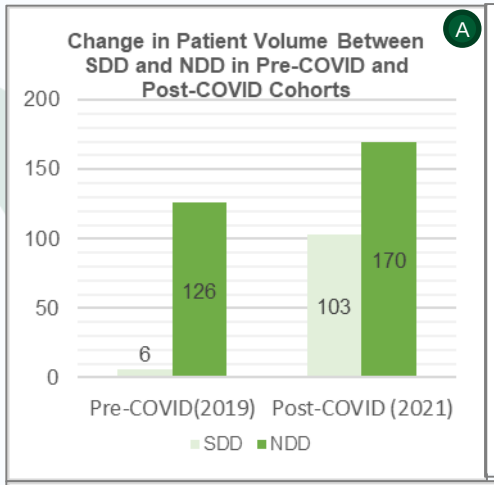
VALUE PROPOSITION

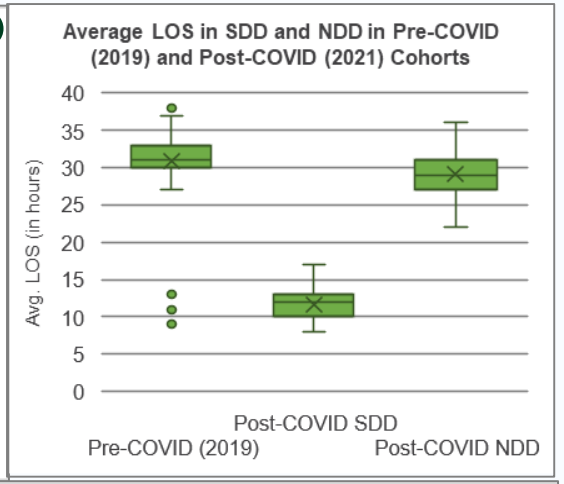
- The implementation of SDD for patients after AF ablation during the COVID-19 pandemic **helped decrease hospital burden & costs without significantly impacting outcomes**.
- Patients who prefer SDD also had higher satisfaction as this minimized their risk for hospital acquired infections & allowed them to recover at home.

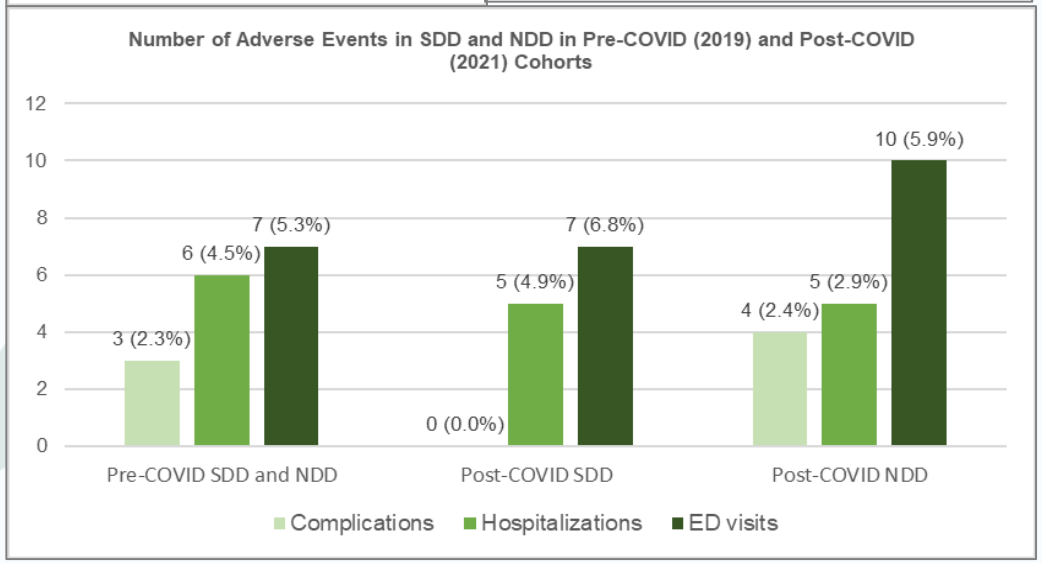
RESULTS

	SDD	NDD	Total
Pre-COVID (2019)	6	126	132
Post-COVID (2021)	103	170	273
Total	**109**	**296**	**405**

- There was a **statistically significant** difference in mean LOS for **SDD** (11.65 hrs. + 1.91) and **NDD** (29.16 hrs. + 3.31) (t_{270} = -55.391, p < 0.000, r=0.96 representing a large effect size) in the post-COVID cohort.
- There was also a **statistically significant difference** in LOS between **Post-COVID NDD** (median 29, IQR: 27-31) and the **Pre-COVID cohort** (median 31, IQR: 29.5-32.5), (U=6258, z= -6.624, p < 0.000, r= -0.38 representing a medium effect size) showing that overall LOS had improved with NDD for patients who underwent AF ablation (Graph B).
- There were **no statistically significant differences** in complications, ED visits, or hospitalizations in AF ablations performed Post-COVID that had **SDD** compared to **NDD** (Chi square test: $c^2_{(1df)}$ = .246, p=.301; ED visits: $c^2_{(1df)}$ = .092, p=.762; hospital admissions: $c^2_{(1df)}$ = .665, p=.415).
- There were **no statistically significant differences** in complications, ED visits, or hospitalizations among AF ablations performed **Pre-COVID** and **SDD Post-COVID** (Chi square test: $c^2_{(1df)}$ = 2.371, p=.258; ED visits: $c^2_{(1df)}$ = .230, p=.631; hospital admissions: $c^2_{(1df)}$ = .012, p=.911). (Graph C)







CONCLUSIONS

- During the COVID-19 pandemic, modifying the discharge protocols for catheter ablation for atrial fibrillation **did not significantly increase the complication rate, ED visits, or hospitalizations in SDD when compared to NDD.**
- Furthermore, **SDD did significantly decrease the LOS.**
- Future studies that investigate SDD protocols after routine AF ablations would help establish SDD as common practice for EP providers.

REFERENCES

Safety of Same Day Discharge after Atrial Fibrillation Ablation. Devender N Akula, MD, Wassef Mariam, DO,and Saccheti Alfred, MD. J Atr Fibrillation. 2020 Feb-Mar, 12(5): 2150.