

# Epidemiological profile of electrophysiological studies with ablation for atrial fibrillation in Brazil, from 2017 to 2022

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**Introduction:** Atrial Fibrillation (AF) is the most common cardiac arrhythmia and is, therefore, a significant public health problem. Catheter ablation is used to control heart rate or rhythm, with the primary objective of electrically isolating arrhythmogenic foci of the pulmonary veins, in cases of paroxysmal or persistent AF. It is typically performed on an elective basis. Currently, it is the most effective treatment for AF, being an excellent alternative to antiarrhythmic pharmacological therapy. Due to the relevance of using ablation in cardiac arrhythmias, especially in AF, this study aims to demonstrate the epidemiological profile of these procedures to encourage better management of cases according to the existing context. **Methods:** Analytical ecological study, with secondary quantitative data, obtained on the DATASUS/SIH platform in hospital procedures regarding electrophysiological studies with ablation for atrial fibrillation in Brazil from 2017 to 2022. The variables analyzed were: hospitalizations, region and nature of the assistance. **Result:** in the period analyzed, 923 hospitalizations for electrophysiological studies with ablation for AF were recorded in Brazil. Of these, the year 2022 presented the highest number of hospitalizations (234), followed by 2019 (163) and 2021 (161). The lowest number was seen in 2017 and 2020 (120). When procedures were evaluated by the Brazilian region, it was found that the Southeast region was responsible for 613 hospitalizations (66.4%), followed by the South, with 126 (13.7%). The regions with the lowest numbers were the North region, with 17 hospitalizations (1.8%) and the Northeast, with 69 (7.5%). Regarding the nature of the assistance, it was found that most hospitalizations were elective (69.9%), and the minority (30.1%) were emergency. Comparing each Brazilian region, it was observed that elective hospitalizations represented the highest percentage in the regions: North, with 13 hospitalizations (76.5%); Northeast, 48 (69.6%); Central-West, 74 (75.5%) and Southeast, 480 (78.3%). In the South region, emergency hospitalizations represented the majority, with 96 hospitalizations (76.2%). **Conclusion:** This work showed a growing trend in electrophysiological studies with ablation for atrial fibrillation during the period analyzed. The Southeast region had the highest gross number of hospitalizations for this operation, while the North had the lowest participation at the national level. The primary type of care in our sample was elective, representing most cases in all regions except the South.