




The nursing role in ajmaline testing and screening for Brugada syndrome

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KEYWORDS: ajmaline testing, Brugada syndrome, nursing role.

CITATION: *Cardiol Croat.* 2024;19(11-12):627. | <https://doi.org/10.15836/ccar2024.627>

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Ajmaline testing is a diagnostic tool used primarily for the identification of Brugada syndrome, a genetic condition associated with a risk of sudden cardiac death due to arrhythmias. The test involves the intravenous administration of ajmaline, a class Ia antiarrhythmic agent, which can unmask the characteristic electrocardiographic (ECG) changes seen in Brugada syndrome, particularly the type 1 Brugada pattern. This pattern is often transient and may not be visible under normal conditions, making pharmacological provocation critical in diagnosing at-risk individuals. The procedure is generally safe but requires careful monitoring due to the potential life-threatening arrhythmias during the test. The role of the nurse in ajmaline testing is crucial, spanning from pre-procedural preparations to post-test monitoring. Nurses are responsible for ensuring that the patient is fully informed about the procedure and potential risks. During the test, they play a key role in monitoring the patient's vital signs and ECG in real time, being vigilant for any arrhythmic events that may necessitate immediate intervention. Nurses also assist in the administration of ajmaline under the supervision of a physician, ensuring the correct dosage and timing are followed. Post-test, nurses continue to monitor the patient for delayed arrhythmic events and help manage any adverse reactions. In addition to their procedural role, nurses contribute significantly to the screening and identification of candidates for ajmaline testing. This includes reviewing patient history for signs of unexplained syncope, family history of sudden cardiac death, or abnormal ECG findings. Nurses are also involved in educating patients about Brugada syndrome, its genetic implications, and the importance of screening family members. Their role extends beyond the test itself, providing psychological support to patients who may be anxious about the potential outcomes. This multidisciplinary approach, with the nurse playing an integral role, ensures patient safety and enhances the effectiveness of ajmaline testing as a screening tool for Brugada syndrome.¹⁻³

RECEIVED:
October 13, 2024

ACCEPTED:
October 31, 2024



LITERATURE

1. Zeppenfeld K, Tfelt-Hansen J, de Riva M, Winkel BG, Behr ER, Blom NA, et al; ESC Scientific Document Group. 2022 ESC Guidelines for the management of patients with ventricular arrhythmias and the prevention of sudden cardiac death. *Eur Heart J.* 2022 Oct 21;43(40):3997-4126. <https://doi.org/10.1093/eurheartj/ehac262>
2. Rodríguez-Mañero M, Jordá P, Hernandez J, Muñoz C, Grima EZ, García-Fernández A, et al. Long-term prognosis of women with Brugada syndrome and electrophysiological study. *Heart Rhythm.* 2021 May;18(5):664-671. <https://doi.org/10.1016/j.hrthm.2020.12.020>
3. Arnalsteen-Dassonville E, Hermida JS, Kubala M, Six I, Quenum S, Leborgne L, Jarry G. Ajmaline challenge for the diagnosis of Brugada syndrome: which protocol? *Arch Cardiovasc Dis.* 2010 Nov-Dec;103(11-12):570-8. <https://doi.org/10.1016/j.acvd.2010.10.007>