

Patch-wearable cardioverter-defibrillator safe and effective

August 3 2024, by Lori Solomon



A novel, water-resistant patch-wearable cardioverter-defibrillator (P-WCD) is safe and effective for patients at risk for sudden cardiac arrest, according to a study published in the Aug. 6 issue of the *Journal of the American College of Cardiology*.

John Hummel, M.D., from The Ohio State University in Columbus, and colleagues assessed the [safety](#) and clinical effectiveness of a novel P-WCD. The analysis included 290 patients at risk for [sudden cardiac arrest](#) due to ventricular tachycardia/[ventricular fibrillation](#) who were not candidates for or refused an implantable defibrillator.

The researchers found that the clinically significant cutaneous adverse device effect rate was 2.30 percent, with no severe adverse effects. There were no device-related deaths or serious adverse events reported. The inappropriate shock rate was 0.36 per 100 patient-months. Nine patients received 11 shocks, of which nine shocks were adjudicated to be appropriate. Eight of nine appropriate shocks were successful with a single shock. Median wear time compliance was 23.5 hours per day.

"There were no patient deaths or missed episodes requiring external rescue, and high patient compliance enabled a high number of successful life-saving conversions," the authors write.

Several authors disclosed ties to medical device companies, including Element Science, which manufactures the studied P-WCD and funded the trial.

More information: John Hummel et al, A Patch Wearable Cardioverter-Defibrillator for Patients at Risk of Sudden Cardiac Arrest, *Journal of the American College of Cardiology* (2024). [DOI: 10.1016/j.jacc.2024.04.063](#)

Emile G. Daoud, Patch Wearable Defibrillator, *Journal of the American College of Cardiology* (2024). [DOI: 10.1016/j.jacc.2024.06.014](#)

Copyright © 2024 [HealthDay](#). All rights reserved.

Citation: Patch-wearable cardioverter-defibrillator safe and effective (2024, August 3) retrieved 3 August 2024 from <https://medicalxpress.com/news/2024-08-patch-wearable-cardioverter-defibrillator-safe.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.