

# Other defibrillation strategies studied for refractory V-fib

November 9 2022

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For patients with refractory ventricular fibrillation during out-of-hospital

cardiac arrest, use of double sequential external defibrillation (DSED) or vector-change (VC) defibrillation results in better survival to hospital discharge compared with standard defibrillation, according to a study published online Nov. 6 in the *New England Journal of Medicine* to coincide with the American Heart Association Scientific Sessions 2022, held from Nov. 5 to 7 in Chicago.

Sheldon Cheskes, M.D., from the University of Toronto, and colleagues conducted a cluster-randomized trial among six Canadian paramedic services to assess DSED and VC defibrillation compared to standard defibrillation in adults with refractory ventricular fibrillation during out-of-hospital cardiac arrest. Data were included for 405 patients: 136, 144, and 125 were randomly assigned to receive standard defibrillation, VC defibrillation, and DSED, respectively. The data and [safety](#) monitoring board stopped the trial due to the coronavirus pandemic.

The researchers found that compared with the standard group, survival to [hospital discharge](#) was more common in the DSED and VC groups (30.4 and 21.7 percent, respectively, versus 13.3 percent; relative risks [95 percent confidence intervals], 2.21 [1.33 to 3.67] and 1.71 [1.01 to 2.88], respectively). A higher percentage of patients had a good neurologic outcome with DSED but not VC defibrillation compared with standard [defibrillation](#) (relative risks [95 percent confidence intervals], 2.21 [1.26 to 3.88] and 1.48 [0.81 to 2.71], respectively).

"Although the outcomes favored DSED, the [logistics](#) of having a second defibrillator available may be a challenge in some paramedic services," the authors write.

One author disclosed financial ties to ZOLL Medical.

**More information:** Sheldon Cheskes et al, Defibrillation Strategies for Refractory Ventricular Fibrillation, *New England Journal of*

*Medicine* (2022). [DOI: 10.1056/NEJMoa2207304](https://doi.org/10.1056/NEJMoa2207304)

Comilla Sasson et al, Defibrillation after Cardiac Arrest—Is It Time to Change Practice?, *New England Journal of Medicine* (2022). [DOI: 10.1056/NEJMe2213562](https://doi.org/10.1056/NEJMe2213562)

[American Heart Association Scientific Sessions 2022](#)

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Citation: Other defibrillation strategies studied for refractory V-fib (2022, November 9) retrieved 23 April 2024 from <https://medicalxpress.com/news/2022-11-defibrillation-strategies-refractory-v-fib.html>

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