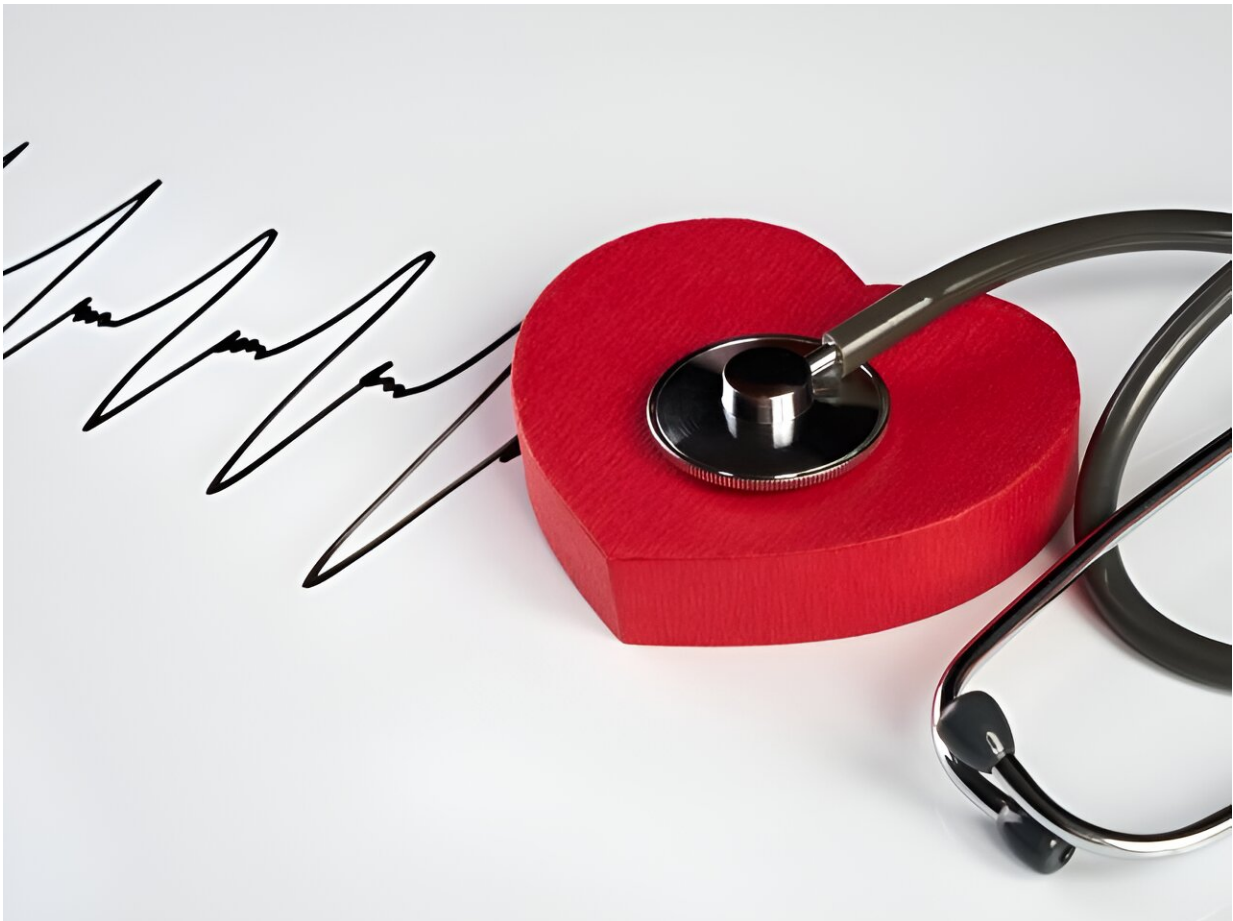


Novel model aids prediction of survival in heart failure with reduced ejection fraction

September 25 2023, by Elana Gotkine



For individuals with heart failure with reduced ejection fraction

(HF_rEF), a new model facilitates prediction of lifelong overall and heart failure hospitalization-free survival and treatment benefit, according to a study published online Sept. 10 in the *European Journal of Heart Failure*.

Pascal M. Burger, from the University Medical Centre Utrecht in the Netherlands, and colleagues developed and validated the LIFEtime-perspective for Heart Failure (LIFE-HF) [model](#) for predicting [lifetime risk](#) and treatment benefit in patients with HF_rEF. The model was developed in 15,415 participants from the PARADIGM-HF and ATMOSPHERE trials. External validation was performed in 51,286 participants in the SwedeHF registry, ASIAN-HF registry, and DAPA-HF trial.

The researchers found adequate calibration of two- to 10-year risk, and the c-statistics were 0.65 to 0.74, respectively. The model was combined with hazard ratios from trials to allow estimation of an individual's (lifetime) risk and treatment benefit. Combined treatment with a mineralocorticoid receptor antagonist, sodium-glucose cotransporter 2 inhibitor, and angiotensin receptor-neprilysin inhibitor was estimated to afford a median of 2.5 and 3.7 additional years of overall and [heart failure](#) hospitalization-free survival, respectively, by applying the tool to the development cohort.

"The model could serve as a tool to improve the management of patients with HF_rEF by facilitating personalized medicine and shared decision-making," the authors write.

Several authors disclosed ties to the pharmaceutical industry.

More information: Pascal M. Burger et al, Personalized lifetime prediction of survival and treatment benefit in patients with heart failure with reduced ejection fraction: The LIFE-HF model, *European Journal*

of Heart Failure (2023). [DOI: 10.1002/ejhf.3028](https://doi.org/10.1002/ejhf.3028)

Copyright © 2023 [HealthDay](#). All rights reserved.

Citation: Novel model aids prediction of survival in heart failure with reduced ejection fraction (2023, September 25) retrieved 28 April 2024 from <https://medicalxpress.com/news/2023-09-aids-survival-heart-failure-ejection.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.