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Device data can ID heart failure patients at readmission risk

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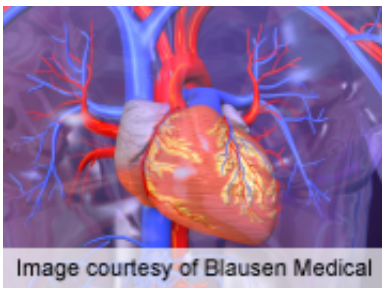
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The use of device diagnostics to risk stratify patients during the first seven days after discharge can help identify patients at greatest risk of readmission for heart failure, according to research published online Oct. 4 in The American Journal of Cardiology.

(HealthDay)—The use of device diagnostics to risk stratify patients during the first seven days after discharge can help identify patients at greatest risk of readmission for heart failure, according to research published online Oct. 4 in *The American Journal of Cardiology*.

To assess whether diagnostic data collected after a heart failure hospitalization can predict the risk of readmission, David J. Whellan, M.D., from Thomas Jefferson University in Philadelphia, and colleagues retrospectively analyzed patients from four studies and identified patients with cardiac resynchronization therapy defibrillator (CRT-D) devices with an admission for heart failure and 30-day post-discharge follow-up data. Diagnostic data from the first seven days after discharge

were evaluated on the seventh day. A combined score was created from the device parameters that significantly predicted 30-day heart failure readmission, and patients were categorized into three risk groups.

Among 166 patients, the researchers identified 254 hospitalizations for heart failure, with 34 readmissions within 30 days. Significant predictors of 30-day readmission included daily impedance; high atrial fibrillation burden with poor rate control (>90 beat/min) or reduced CRT-D pacing (80 beats/min. There was a significantly greater risk for 30-day readmission for heart failure among patients in the "high"-risk group for the combined diagnostic (hazard ratio, 25.4) compared to the "low"-risk group.

"Future studies to validate the scoring system and to show that using the diagnostics at seven days can reduce heart failure readmissions are required before implementation of this strategy in clinical practice," the authors write.

Several authors disclosed financial ties (including employment) to Medtronic.

More information: Abstract
Full Text (subscription or payment may be required)
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