

BNP, Gal-3 levels predict 60-day readmission in heart failure

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(HealthDay)—For patients with acute decompensated heart failure

(ADHF), measurement of B-type natriuretic peptide (BNP) and galectin-3 (Gal-3) before discharge can predict hospital readmission within 60 days, according to a study published in the Feb. 1 issue of *The American Journal of Cardiology*.

Sangita Sudharshan, M.D., from the Washington University School of Medicine in St. Louis, and colleagues enrolled and followed 101 participants with a primary diagnosis of ADHF. The authors obtained Gal-3, high-sensitivity troponin I, and BNP within 48 hours before hospital [discharge](#), after management of ADHF. Data were compared for subjects who were and were not readmitted.

The researchers found that discharge BNP significantly predicted 30- and 60-day readmission (area under the curve, 0.69 and 0.7, respectively). Significantly improved prediction of 60-day readmission was seen with addition of Gal-3 to discharge BNP. For patients with preserved ejection fraction, Gal-3 alone was a significant predictor of 60-day readmission (area under the curve, 0.85), with a significant net reclassification improvement of 55.2. For every 100 pg/L BNP increase the probability of readmission increased by about 10 percent; the probability further increased 8 percent for every 1-ng/mL Gal-3 increase, in multivariate analysis. There was no statistically significant net reclassification improvement for 30-day readmission.

"Measurement of both Gal-3 and BNP at [hospital discharge](#) provides significant prediction of [hospital readmission](#) within 60 days," the authors write. "When combined, the prediction of [readmission](#) is significantly improved."

Abbott Diagnostics and BG Medicine provided Gal-3 reagents used for the study.

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