

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 <u>hospital discharge</u> provides significant prediction of <u>hospital readmission</u> within 60 days," the authors write. "When combined, the prediction of <u>readmission</u> is significantly improved."

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

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