Low rate of patient monitoring found following initiation of therapy for heart failure

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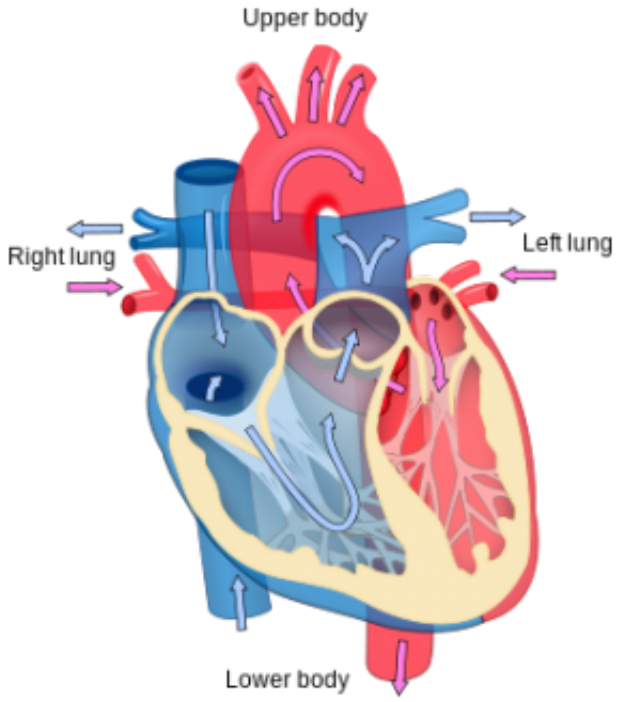

Heart diagram. Credit: Wikipedia

Although frequent laboratory monitoring of patients with heart failure following initiation of mineralocorticoid receptor antagonists is supported by the results of large clinical trials and recommended in guidelines, there appears to be low rates of monitoring in clinical practice, according to a study in the November 10 issue of *JAMA*. This

issue, a cardiovascular disease theme issue, coincides with the American Heart Association's Scientific Sessions 2015.

Mineralocorticoid receptor antagonists (MRAs) are a cornerstone of heart failure therapy but carry a risk of hyperkalemia (elevated potassium in the blood). Clinical guidelines recommend close monitoring of kidney function and electrolyte (including potassium) levels throughout the course of therapy. No large studies have examined whether laboratory monitoring occurs routinely in community practice. Adrian F. Hernandez, M.D., M.H.S., of the Duke University School of Medicine, Durham, N.C., and colleagues analyzed a group of patients (10,443 Medicare beneficiaries) with heart failure who had initiated MRA therapy (eplerenone or spironolactone). The researchers examined the frequency of measurement of serum creatinine and potassium levels before and after MRA initiation.

The researchers found that combined, 756 patients (7 percent) received appropriate testing before and after MRA initiation. After initiation of MRA therapy, 13 percent and 30 percent of patients received appropriate testing in early and extended follow-up, respectively. In contrast, 55 percent and 22 percent received no testing in early or extended follow-up, respectively. Atrial fibrillation, anemia, chronic kidney disease, chronic obstructive pulmonary disease, hypothyroidism, osteoporosis, and use of diuretics were associated with a greater likelihood of appropriate laboratory testing during all periods.

"The landmark trials of MRAs in heart failure showed MRAs significantly reduced mortality and cardiovascular readmission compared with placebo. However, an analysis of community practice found similar outcomes among patients treated or not treated with an MRA. One possible explanation may be less rigorous monitoring outside clinical trial settings, which may increase risks of adverse events associated with MRAs," the authors write.

"Closing the gap between the efficacy and effectiveness of MRAs in heart failure will require clinicians to address this issue. Quality improvement initiatives to improve appropriate laboratory monitoring are needed."

More information: *JAMA*, DOI: 10.1001/jama.2015.11904