**PROBNP AND TROPONIN COMBINED IS A STRONGER PREDICTOR OF READMISSIONS COMPARED TO PROBNP ALONE IN CHF PATIENTS**

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Objective:Evaluate readmission (re-ad) rates among patients (pts) with elevation in both pro-brain natriuretic peptide (PBNP) and Troponin T (trop) verses those with elevated PBNP alone.

Background:Elevated PBNP in acute decompensated congestive heart failure (ADCHF) represents myocardial overload. Elevated trop; a marker for myocyte injury occurs in some pts.

Methods and results:Retrospective analysis of 1,953 pts admitted with ADCHF was done. Pts. with normal Left Ventricular (LV) systolic function were excluded. Remaining 1,329 (68%) with LV ejection fraction (LVEF) <50 % is our cohort. PBNP and three sets of trop were measured. Abnormal PBNP was ≥125 pg/ml and trop ≥0.100ng/ml. Pts (n=213) with history (hx) of MI, myocarditis or pericarditis, cardiac surgery or interventions, within three months, with new ECG changes, hx of malignancy, GFR ≤30 and pulmonary embolism were excluded. Remaining 1,116 pts were divided into: Group I (n=106); both PBNP and trop elevated. Group II (n=1,010); only elevated PBNP. Incidence of re-ads for CHF exacerbation over 12 months was evaluated. Demographics for both groups were similar (p>0.05 for all). There was no significant difference in mean LVEF (34±11vs.33±11, p=0.294). Group I were more likely to be readmitted due to ADCHF over a 12 month period (69.8% vs. 43%, p<0.001), more single re-ads

(33% vs. 21%) and multiple re-ads (37% vs. 22%), p<0.001. Re-ad rate was gender independent. Additionally, All cause 2 year mortality was higher in the group I compared to group II (39% vs. 26 %, p=0.0054).

Conclusion: A combined elevation of both PBNP and trop is a stronger predictor of CHF related readmissions and higher risk for all cause mortality compared to isolated elevation of PBNP among pts admitted with ADCHF with LVEF < 50%.