The predictive value of NT-proBNP across glomerular filtration rate subsets in heart failure treated patients

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OBJECTIVE

- We aimed to assess the predictive value of high NT-proBNP for all-cause long-term mortality in heart failure (HF) patients for different subsets of renal function defined by the estimated glomerular filtration rate (eGFR).

METHODS

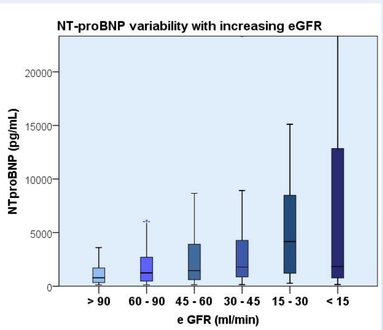
- HF patients were admitted consecutively to our Cardiology Department from 2011 to 2014
- Patients without contemporary guideline-directed medical therapy, those with in-hospital mortality, or incomplete data were excluded.
- All-cause mortality was assessed in June 2020 after a median follow-up of 96 months.
- eGFR was calculated using the CKD-EPI formula.

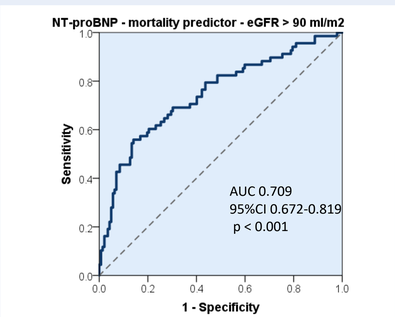
RESULTS

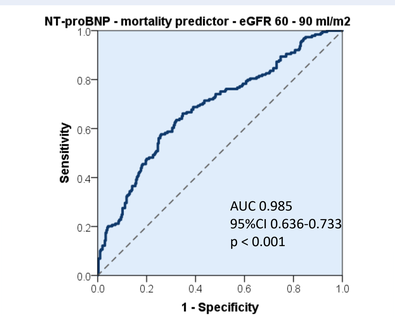
General characteristics	N = 1262 patients
Age	Mean age 72.21 +/- 10.47
Female patients	52.06%
HFrEF	28%
HFmrEF	29.5%
HFpEF	42.5%
All-cause mortality	44.36%

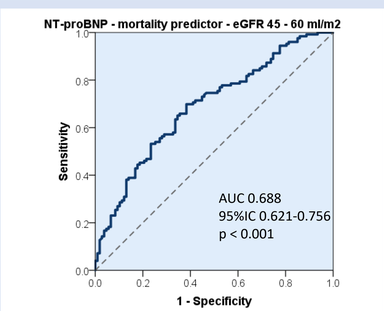
RESULTS

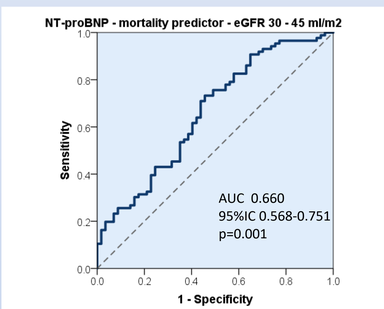
- In multivariable analysis eGFR (p=0.001) and NT-proBNP (p<0.001) were independent predictors of mortality. The overall predictive value of NT-proBNP for mortality associated an AUC of 0.709, 95%CI 0.679–0.739, p<0.001.

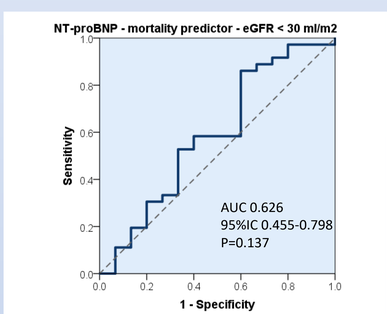












CONCLUSION

- **In HF patients NT-proBNP and eGFR were independent predictors of mortality.**
- **However, at low eGFR (30ml/min/1.73m^2), the predictive value of NT-proBNP is lost.**