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## **Risk stratification of pulmonary arterial hypertension using eight different cardiovascular biomarkers**

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Pulmonary Arterial Hypertension (PAH) is a devastating condition, characterized by a progressive increase in pulmonary vascular resistance and subsequently resulting in right heart failure and death. The objective of this thesis was to elucidate the role of new blood biomarkers and clinical prognosticators in PAH.

The data shows that the 6 Minute Walk Test might be the most important clinical parameter in determining prognosis of PAH patients. Moreover, biomarkers were found to predict death better than any clinical parameters.

Levels of hsTnT, pro-ANP, and sFlt-1 were elevated in patients who subsequently died during a follow-up of 3 years. In particular hsTnT may be of special interest as ROC curve analysis revealed the best performance with a AUC of 0.84. The optimal cutoff-value for hsTnT was >16.56ng/L with a sensitivity of 83%, and a specificity of 75%. Interestingly, NT-proBNP levels were not elevated in deceased patients.

This may indicate a possible superior role compared with NT-proBNP and BNP that are currently the only limited biomarkers in PAH. Further studies with larger case numbers are essential.