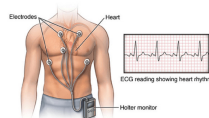


# DEVELOPMENT OF PROGNOSTIC INDEX FOR CORRELATION OF THE FINDINGS FOR AMBULATORY BLOOD PRESSURE MONITORING AND HOLTER MONITORING: RATIONALE, ALGORITHM AND PROTOCOL OF PREDICT STUDY

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## Introduction

- The evidence for the value of the association of the findings of simultaneous 24 hour Holter electrocardiography (ECG) monitoring with Ambulatory Blood Pressure Monitoring (ABPM) is limited
- Sympathetic overactivity during night is a well recognized factor of hypertension development in adults
- However, the deleterious effect of nocturnal autonomic activation in elderly remains controversial.

## Objectives

- To develop a prognostic index based on a cost effective cardiovascular screening based on the correlation of circadian variability of BP with the 24-hour ECG monitoring for rate and rhythm of heart

## Methods

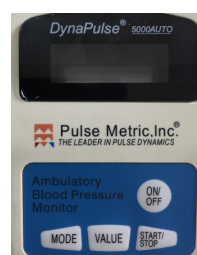
- This proof of concept study in 500 patients at our tertiary care centre is developed as a mixed-methods approach in three steps
- First, patients reporting would be screened for hypertension
- Second, known hypertensives and the newly detected hypertensives as standard of care approach would undergo a simultaneous monitoring of 24-hour BP with Holter
- Third, these patients would undergo ABPM at home and followed up for five years to develop a prognostic index.
- The specific sub-groups that would contribute to the weighted score include hypertensives with cerebrovascular accident, accelerated hypertension, sleep apnea

## Results

- The nocturnal BP monitoring is the rationale for determining the four sub-groups- normal dippers, non-dippers, extreme and reverse dippers. The primary outcome measures include the correlates for ST-T wave abnormalities, tachycardia and the patterns from recovery from stroke, improvement in cognitive scores, heart rate turbulence, association between the left ventricular mass and the dipping pattern
- The secondary outcomes measures would be based on the follow up for the outcomes for the hospitalisation for heart failure and cardiac death

## Conclusions

- This would be the first study in Indian hypertensive patients for the development of a reliable prognostic index based on the triad of cardiovascular risk profile, the variability of the 24-hour BP and cardiac arrhythmic patterns
- The prognostic index based on the characteristic of the patient would be a guide for an efficient hospital initiated-improvised home care follow up model for the effective management of hypertension



## Bibliography

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