A NOVEL INDEX OF NOCICEPTION DERIVED FROM HEART RATE VARIABILITY PARAMETERS

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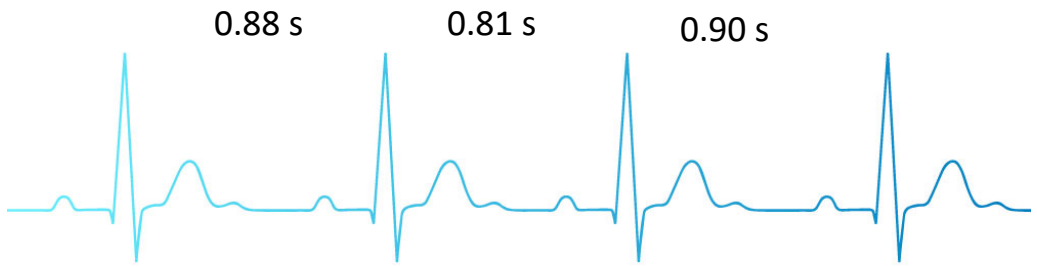
The Heart Rate variability (HRV).

- The time between each consecutive R peaks vary, hence the term HRV. The interval between each beat is different, this creates variation



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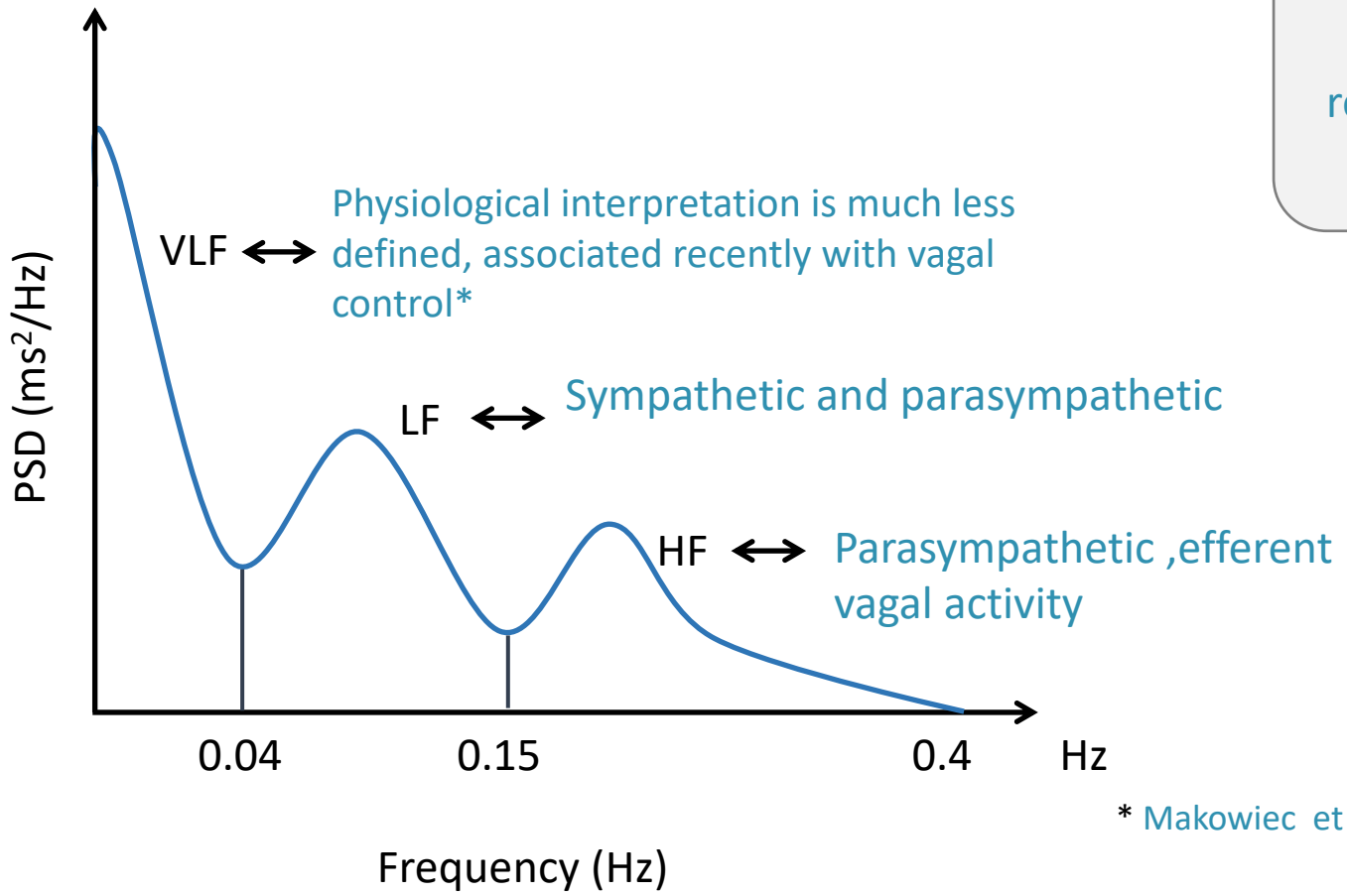
Heart Rate Variability in the frequency domain

The power and the central frequency of LF and HF vary in relation to changes in autonomic modulations of the heart rate



* Makowiec et al. *EPL* 2011;94:68005.

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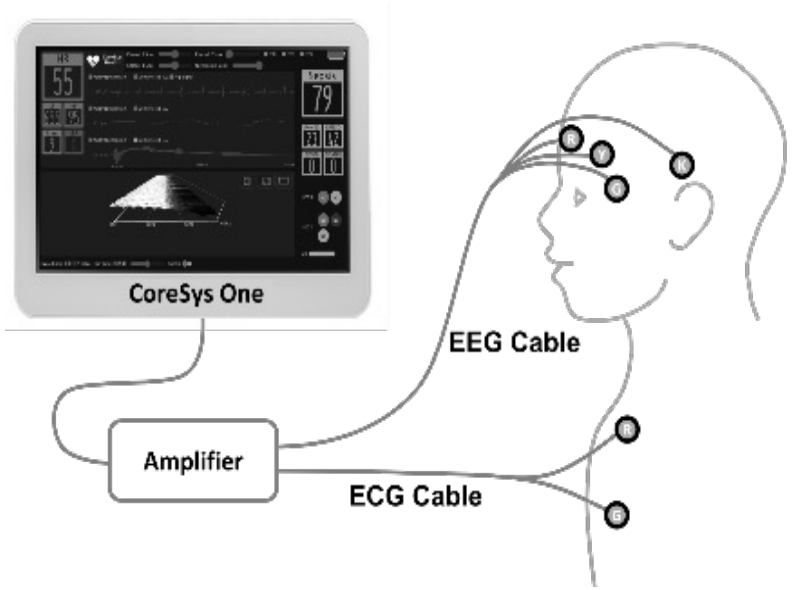
Methods.

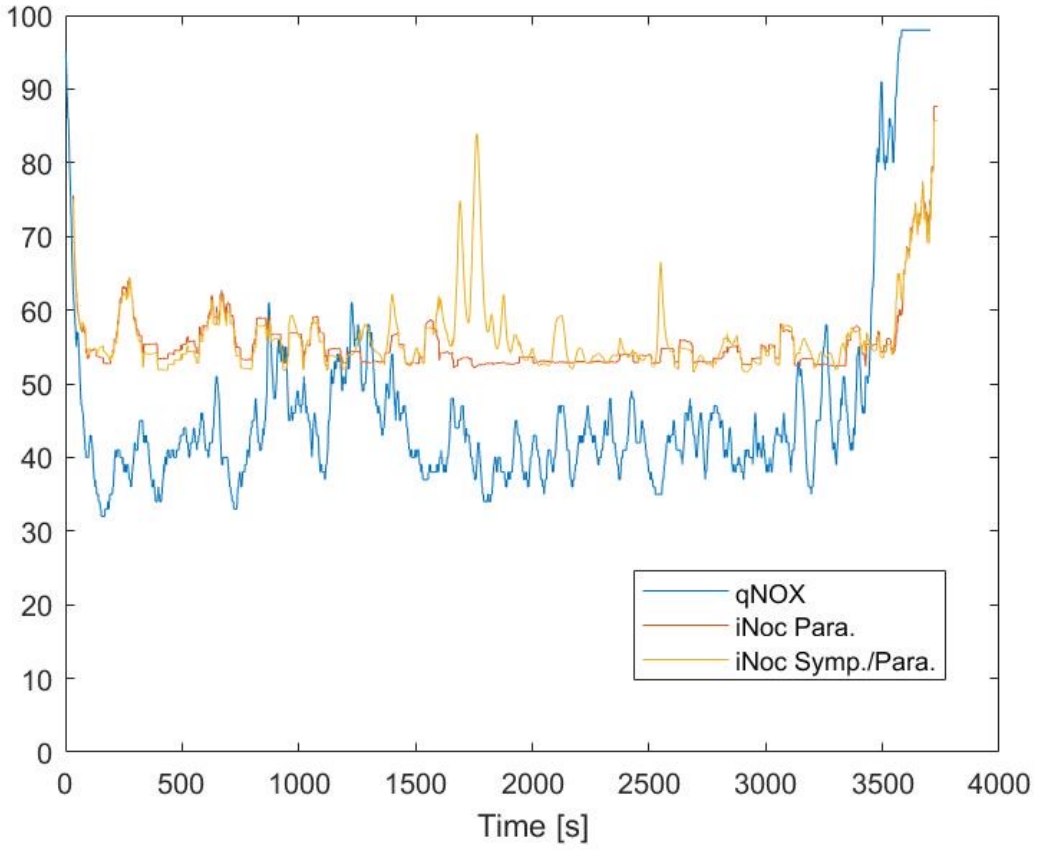
- Two EEG channels and one electrocardiogram (ECG) channel were recorded with the CoreSysOne monitor (Fig. 1) at a sampling frequency of 1024 Hz.
- N=15, TIVA



Results

	RMSE	MdAPE
Model using LF/HF	18.03 (13.72-21.42)	0.257 (0.212-0.318)
Model using HF	17.38 (13.89-21.82)	0.267 (0.214-0.324)

a. *Median Value (Q1-Q3)*



Conclusion

- The two HRV derived indices were not significantly different from the qNOX, calculated through EEG. More studies with a larger population and different models are needed.