

*To the attention of the R&D team of the MS KOLIBRI  
To Whom It May Concern*

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### **Feedback on the MS KOLIBRI: opportunities, usefulness and potential**

More and more a state of the art healthcare solutions are based on AI, methods of mathematical modeling and neural networks. PERSONAL HEALTH SCREENING SYSTEM KOLIBRI® - a medical system for noninvasive screening of human health based on the analysis of heart activity (HA) and heart rate variability (HRV) - is one of them (MS KOLIBRI).

During testing of MS KOLIBRI in practice, it was found that it is able to reliably determine violations of the cardiovascular system functioning, which are essential in the diagnosis of relevant pathologies.

Using MS KOLIBRI, it is possible to determine the development of myocardial ischemia on the very initial stage (which can lead to myocardial infarction) based on the following:

- a) MS KOLIBRI determines ST-elevation - the segment of the ECG that shows ventricular depolarization and repolarization. It is the segment where myocardial ischemia is initially manifested.
- b) At the same time, the left bundle branch block (LBBB) can also be determined, which can be with or without myocardial infarction (MI). If ST elevation and LBBB are detected simultaneously, this is a severe signal for further examining the patient for MI development.
- c) The greatest concern is when the combination of signs mentioned above followed by Long QT syndrome (also available in the results of MS KOLIBRI).
- d) MS KOLIBRI also determines mirror ST-T abnormalities. In the cases when acute myocardial infarction is not confirmed, we can suspect the presence of pericarditis, LBBB, ventricular hypertrophy, electrolyte metabolism disorders. Therefore, such a patient should be referred to a cardiologist for a detailed examination.

MS KOLIBRI is also able to determine heart rate variability (HRV), including the detection of atrial fibrillation with bradycardia or tachycardia, left and right bundle branch block, abnormalities of atrioventricular conduction. More than 25 such indices are available in the report of MS KOLIBRI. It should be noted that the use of HRV data for assessing the cardiac system (and not only) has become more and more popular in recent years.

Detected deviations of rhythm, RR interval, P wave, PR segment, QT interval and ST interval are the reason for a more thorough electrophysiological examination of the patient.

I'd recommend the R&D team consider the possibility of equipping the system with an alarm, which warns the patient about high (more than 140bpm) or low (less than 40bpm) heartbeat.

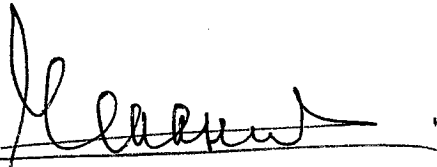
Based on my background and many years of practical cardiology experience, I can confidently say that MS KOLIBRI is extremely useful for both a practicing cardiologist and a family doctor. Based on state-of-the-art technology, the MS KOLIBRI provides reliable results in a user-friendly manner. Cardiologists can analyze and interpret data of heart activity and HRV in detail, while medical professionals of other specialties can use summarized information on findings.

Given current trends and the growing demand for medical instruments used for remote monitoring and testing of patients, such a system has great potential and prospects, since it includes a wearable smart device, a mobile application and access to the cloud platform (for calculation and data storage).

It benefits both patients and healthcare professionals since it allows patients to be tested remotely. It doesn't matter where a patient or a doctor is at the moment of testing. Results are available immediately after testing for both.

Clinical trials of MS KOLIBRI are to be conducted to confirm the system's reliability, safety and performance.

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