

Claims

1. A system for generating an alert for a systemic infection of a patient (P), the system comprising: an implantable medical device (1) configured to measure a measurement
5 parameter indicative of the heart rate at rest of the patient, a remote monitoring system (2) configured to receive information from the implantable medical device (1), and a module configured to analyze information relating to said measurement parameter indicative of the heart rate at rest of the patient (P) to generate an alert signal for a systemic infection of the patient (P) based on a state of the heart rate at
10 rest, wherein the module is configured, for analyzing said measurement parameter, to compare the measurement parameter or a parameter value derived from the measurement parameter to a threshold (T1, T2) and to generate said alert signal based on said comparison, wherein the threshold (T1, T2) is predefined or determined based on a group of prior values of the heart rate at rest, wherein said
15 threshold (T1, T2) is in a range between 90 bpm and 120 bpm OR wherein said threshold (T1, T2) is in a range between 110% and 150% of an average of the heart rate at rest over a predefined time period.
2. The system of claim 1, **characterized in** that the implantable medical device (1)
20 comprises a communication device (17) for communicating with the remote monitoring system (2) using a pre-defined communication protocol for transmitting information relating to said measurement parameter to the remote monitoring system (2).
- 25 3. The system of claim 2, **characterized in** that the communication protocol is MICS, BLE or Zigbee.
4. The system of one of the preceding claims, **characterized in** that the implantable medical device (1) comprises said module, the implantable medical device (1) being
30 configured to generate said alert signal based on information relating to said measurement parameter and to transmit information relating to said alert signal to the remote monitoring system (2).

5. The system of one of the preceding claims, **characterized in** that the remote monitoring system (2) comprises said module, the remote monitoring system (2) being configured to generate said alert signal based on information relating to said measurement parameter.
6. The system of one of the preceding claims, **characterized by** an information system (3) configured to communicate with said remote monitoring system (2).
7. The system of claim 6, **characterized in** that the information system (3) comprises the module, the information system (3) being configured to generate said alert signal based on information relating to said measurement parameter.
8. The system of claim 6 or 7, **characterized in** that at least one of the implantable medical device (1), the remote monitoring system (2) and the information system (3) is configured to generate an alert message (B4, B5) to be provided to a specified destination based on said alert signal.
9. The system of claim 8, **characterized in** that the information system (3) is configured to transmit said alert message to said destination using a dedicated communication path (A4, A5).
10. The system of claim 9, **characterized in** that the information system (3) is configured to provide information not related to said alert message on a default communication path (A3) different than said dedicated communication path (A4, A5).
11. The system of one of the claims 6 to 10, **characterized in** that the information system is an automated information system delivering patient information to the patient.

12. The system of one of the preceding claims, **characterized in** that the implantable medical device is configured to measure at least one further physiologic parameter in addition to the measurement parameter indicative of the heart rate at rest.
- 5 13. The system of claim 12, **characterized in** that the further physiologic parameter contains one or more of the following parameters: the body temperature, the respiration rate for normal breathing patterns, the respiration rate for abnormal breathing patterns, the presence of breathing pauses or apnea events, the relationship between respiration effort and respiration activity, other respiration parameters, a
10 patient activity parameter and any combination of these parameters.
14. The system of one of the preceding claims, **characterized in** that the implantable medical device is an implantable pulse generator (IPG) such as an implantable cardiac pacemaker, an implantable cardioverter-defibrillator (ICD), a cardiac
15 resynchronization therapy device (CRT), a neuro stimulator or an implantable loop recorder.
15. A method for generating an alert for a systemic infection of a patient (P), the method comprising: measuring, using an implantable medical device (1), a measurement
20 parameter indicative of the heart rate at rest of the patient; and receiving, by a remote monitoring system (2), information from the implantable medical device (1);
characterized by analyzing information relating to said measurement parameter indicative of the heart rate at rest of the patient (P) to generate an alert signal for a systemic infection of the patient (P) based on a state of the heart rate at rest.