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(54) Title: SYSTEM AND METHOD FOR IMPROVING DATA MANAGEMENT BETWEEN IMPLANTABLE MEDICAL DEVICES AND EXTERNAL DEVICES

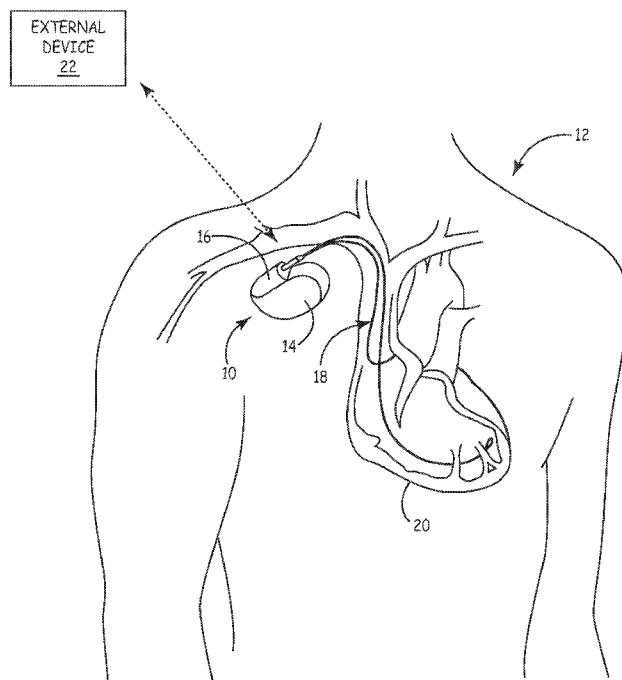


FIG. 1

(57) Abstract: Systems, methods and devices are provided for improving data management between implantable medical devices (IMDs) and external devices for the detection of volume overload and volume depletion conditions. Data acquired by the IMD is periodically communicated to the external device where a volume overload monitoring algorithm is operated to detect whether a volume overload condition is present in the patient by monitoring the acquired data at the external device at a first lower, non-real time frequency rate. Upon detection of a volume overload condition, the external device issues an instruction to the IMD causing the IMD to initiate a volume depletion condition monitoring algorithm for detecting in real time whether a volume depletion condition is present in the patient.



MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM,
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AMENDED CLAIMS

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7. A system for detecting volume depletion in a patient comprising:
- an implantable medical device (IMD) configured for acquiring data related to sensed physiological parameters within a patient associated with volume depletion and for periodically communicating the acquired data to an external device;
 - an external device configured for:
 - performing a volume depletion monitoring algorithm for monitoring the acquired data at the external device at a first lower frequency rate to detect volume depletion in the patient; and
 - upon detecting volume depletion in the patient, generating an instruction to the IMD to monitor for volume depletion in the patient; and
 - wherein the IMD is further configured for initiating a volume depletion monitoring algorithm for monitoring data related to volume depletion at a second higher frequency rate to detect volume depletion in the patient
8. The system of claim 7, wherein the IMD is configured to monitor for volume depletion in substantially real-time to when the monitored data is acquired while the external device is configured to monitor for volume overload in non-real-time to when the monitored data is acquired.
9. The system of claim 7, wherein the IMD is configured to generate an alert to at least one of a patient and a clinician upon detection of volume depletion.
10. The system of claim 7, wherein the external device is configured to generate an alert to at least one of a patient and a clinician upon detection of volume overload.
11. The system of claim 7, wherein the IMD is configured for acquiring data required for monitoring volume overload at a less frequent data sampling rate than a sampling rate at which data is acquired for monitoring volume depletion.