McGill University- New Medical Device to predict postoperative nausea and vomiting (PONV) syndrome

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Technology description

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A device and method that can reduce the incidence of postoperative nausea and vomiting (PONV). This technology can be easily built-in an ECG as a new feature. The current tests (risk score questionnaires) available to identify patients who may suffer from PONV are subjective and not reliable (based on questions that patients can not always answer; particularly for patients undergoing first-time surgery). The proposed technology is simple and consists of recording the heart rate using a conventional electrocardiogram and measuring the heart rate variability using the Fast Fournier Transform Technique and the Wavelet Transform Technique. The method of our technology objectively measures the patient's EKG and returns a single numerical value upon which is based the risk of the occurrence of PONV.

Market Synopsis

The incidence of PONV in patients undergoing surgery is estimated to be 30-70% and such patients require longer hospitalization, which is costly. The global patient monitoring market was valued at $4.9 billion in 2008. The market is mature and mainly fuelled by an aging population requiring more hospital facilities and services. The ECG cardiovascular monitoring market can be classified in three distinct categories: resting ECG, ECG data managemnt and stress testing systems. Among all these segments, the ECG management (acquisition, storage and retrieval of data) is the only one in a growing phase.

City

Montreal

Industry

Medical Device

State/Country

Canada

Deal Sought

Licensing

Booth Number

117

The global patient monitoring market was valued at $4.9 billion in 2008. Driven by rise in the chronic disease population, the market is forecast to grow by 3.8% annually during 2008-2015 to reach $7.2 billion by 2015. The target population consists of all patients undergoing surgery requiring general anesthesia. Such population is increasing and it is mainly explained by the specific changes in demographics which are moving a sizeable population pool into higher illness categories, requiring more hospital medical interventions.

Institution

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