

BIOFEEDBACK CONTROLLED ANALGESIA

Technology Offer

F54236

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Branch

pain, analgesia, opioid

Patent Situation

EP patent application filed

Offer

cooperation for further development

Key Words

analgesia, opioid, PCA, TCI

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Introduction

Target controlled infusion (TCI) and Patient controlled analgesia (PCA) are common ways to control pain with opioids, e.g. during or after surgery or in palliative pain management. TCI allows for quick and controlled adjustments of target analgesia in patients but requires constant handling and supervision of the patient by qualified and trained personal. PCA, on the other hand, allows patients to control their own analgesia without supervision but built-in safety mechanisms to avoid fatal overdosing may prevent achievement of sufficient analgesia.

Invention

The invention comprises a new opioid infusion device that combines several advantages of TCI and PCA while avoiding certain disadvantages of the respective methods. Feedback controlled analgesia (FCA) allows patients to titrate themselves with opioids until they reach adequate analgesia. The patented method allows control and

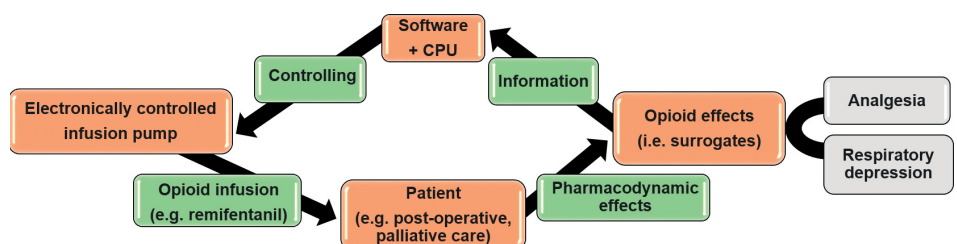
maintainance of adequate and safe opioid analgesia without continuous adjustment by the patient or constant supervision by medical personal. Opioid analgesia (or opioid blood concentration) is predicted from combined observations of several monitored non-invasive surrogate markers of pain and analgesia, while monitoring surrogate safety parameters, such as respiratory depression. FCA represents a major improvement over the currently clinically established TCI and PCA setups. The prediction method and the apparatus suitable for the implementation of the inventive methods are disclosed in the patent application, as well as the equipment to be used imedical treatment, such as pain therapy.

Market Potential

Pain patients requiring constant analgesia.

Development Status

The method has been laboratory tested for the prediction of analgesia by surrogate parameters.



Biofeedback-controlled TCI-System.