



3 May, 2013

Cortical Dynamics Presents Results of Clinical Trial at the Annual Scientific Meeting of the Australian and New Zealand College of Anaesthetists (ANZCA) in Melbourne

Cortical Dynamics Ltd (“**Cortical**”), an investee company of BPH Energy Limited (ASX: BPH), is pleased to announce that the results of a major clinical trial involving the BAR monitor are to be presented on 4th May at the 2013 Annual Scientific Meeting of the Australian and New Zealand College of Anaesthetists held in Melbourne.

The clinical trial, involving 25 patients undergoing elective coronary artery bypass surgery, was designed to evaluate the ability of the BAR monitor to distinguish between two different doses of the widely used intravenous analgesic fentanyl, in addition to assessing the immunity of the BAR monitor to a range of intra-operative mechanical and electrical artifacts known to complicate the EEG measurement of anaesthetic action.

The principle investigator in the trial was Dr Desmond McGlade, Senior Staff Anaesthetist, from the Department of Anaesthesia at St Vincent’s Hospital in Melbourne. Cortical worked closely with Dr McGlade and his team during the study to ensure the integrity of all data collecting protocols and procedures.

A detailed analysis of the trial results indicated that the BAR Monitor’s Cortical Input (CI) index differed significantly between the two different fentanyl doses. In contrast the BAR Monitor’s Cortical State (CS) index, and the simultaneously recorded BIS™ index were unchanged.

The ability of the CI index to distinguish between the two different fentanyl doses indicates that the BAR Monitor may be useful for the intra-operative monitoring of analgesia. Further, given that during this study the CS index was highly correlated with the BIS™ index, it suggests that the BAR monitor may find significant utility in the delivery of optimal and balanced surgical anaesthesia.

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