

Anaesthetists Guidelines Supports LiDCO's Multi Modal Monitoring Strategy



Lidco Group Plc, the cardiovascular monitoring company, welcomes the publication of The Association of Anaesthetists of Great Britain and Ireland ('AAGBI') guidelines for the perioperative care of the elderly and a paper from Dr David Green and colleagues at Kings College Hospital.

The recommendations within the AAGBI guidelines and the direct experience with Multi Modal Monitoring ('MMM') described in Dr David Green's paper are a very positive reinforcement for Lidco's product strategy that allows MMM to be achieved with the use of a single monitor – the LiDCOrapid.

MMM involves the measurement and monitoring of several physiological outputs and the AAGBI guidelines suggest these include the following which are incorporated into the LiDCOrapid:

- Continuous monitoring of intra-arterial blood pressure
- Haemodynamic response to fluid administration
- Depth of anaesthesia monitoring this is also recommended by NICE and particularly relevant for older patients who typically require lower levels of sedation

AAGBI Guidelines - Perioperative Care of the Elderly

Disease-related declines in physiological reserves in the elderly population increase the risk of both mortality and complications secondary to oxygen debt due to poor perfusion during major surgery. Anaesthetic, fluid and drug interventions in and around surgery, should therefore be monitored with the aim of reducing oxygen demand, maintaining oxygen delivery and avoiding excessive anaesthesia and hypotension (low blood pressure). To achieve these goals, the guidelines strongly suggest the use of MMM. The LiDCOrapid monitor with Unity Software can be used to invasively (arterial line) or completely non invasively (without insertion of an arterial line) monitor arterial pressure, cardiac output, fluids and depth of anaesthesia with the goal of avoiding the accumulation of an oxygen debt in this fragile patient group.

The AAGBI Guideline can be found by following this link.

Dr David Green's Paper

This paper reports the outcome, following MMM, of 120 high risk elderly vascular surgery patients. MMM with the LiDCOrapid monitor and BIS depth of anaesthesia was used as part of a pre-emptive hemodynamic strategy to optimally deliver anesthesia, drugs and fluids. Intraoperative cardiac output and oxygen delivery were successfully maintained at around 90% of pre surgery values in these high risk elderly patients. Without MMM, a predicted mortality rate of 9% would be expected, however in this study using MMM the mortality rate was much lower at 0.8% (one patient). The authors also report that optimising patients this way "reduces dramatically the requirement for post operative high dependency management of the patient." Post operatively only 8% (10 patients) needed to be taken to a high dependency unit (high cost), with the majority of patients being able to be nursed post operatively on general wards, thereby incurring a lower recovery cost of care.

Terry O'Brien, Chief Executive Officer of Lidco commented: "An increasing number of elderly patients are undergoing surgery and it's critical that they receive the right monitoring to reduce costs, mortality and complication rates. The use of Lidco's MMM (LiDCOrapid) allows the hospital to provide this very necessary advanced level of care. The recent addition of a non invasive option now allows all high risk elderly patients to be monitored without the use of a highly invasive catheter."

Source: LiDCO

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