Can you help reduce the incidence of postoperative delirium with Bispectral Index™ (BIS™) technology?
A pilot study indicated that nearly **1/3 OF PATIENTS** undergoing cardiac surgery developed postoperative delirium.\(^3\) Another study which assessed risk factors for delirium in CABG procedures corroborated this finding, reporting an incidence of 32%.\(^4\)

**POSTOPERATIVE DELIRIUM CARRIES AN INCREASED RISK OF INSTITUTIONALIZATION, DEMENTIA AND DEATH**

For all patients, the perioperative period is when the brain is especially vulnerable to neurobehavioral disturbances.

Postoperative delirium is the most severe of these complications, and in fact, it is “tantamount to an acute brain failure, and should be considered akin to other postoperative organ failures”\(^1\).

Yet, it is believed that more than 50% of delirium cases are unrecognized by the clinical team during inpatient services.\(^2\)
THE HIGH PREVALENCE OF DELIRIUM

Across all surgical procedures requiring anesthesia, ten percent of patients over 50 may experience some level of delirium postoperatively, and the risk increases up to 60% for those over 65. Up to 21% of patients experience emergence delirium after anesthesia and surgery.

THE COST IMPACT OF DELIRIUM ON HOSPITALS

Numerous studies have shown an increased risk of institutionalization, dementia and death in patients with postoperative delirium as well as increases in hospital length of stay (LOS) by up to six days. Moreover, total cost estimates attributable to delirium ranged from $16,303 to $64,421 per patient.

According to a study in The Association of Perioperative Registered Nurses, post-hospital treatment for delirium costs over $100 billion per year, which includes additional rehabilitation services, home health care and nursing home care.
SIGNIFICANT PATIENT RISK

Patients with delirium “have a 25 to 70 percent higher chance of dying during their hospital stay” and “a 62 percent higher risk of mortality in the following year,” said Sharon K. Inouye, M.D., Professor of Medicine at Harvard Medical School. These patients are also exposed to other major postoperative complications, including prolonged hospitalization, loss of functional independence and reduced cognitive function.

The American Geriatrics Society now believes there is sufficient peer-reviewed, published data on levels of anesthesia as an independent predictor of delirium in the postsurgical setting. The AGS Expert Panel on Postoperative Delirium in Older Adults issued a consensus statement on intraoperative monitoring. It asserts that practitioners may use “processed electroencephalographic monitors of anesthetic depth during intravenous sedation or general anesthesia of older patients to reduce postoperative delirium.”

POSTOPERATIVE DELIRIUM IS PREVENTABLE

… in up to 40% of cases with a proper screening program, the identification of risk factors and the implementation of evidence-based monitoring methods within the OR.

BIS™ TECHNOLOGY CAN HELP MITIGATE RISK AND IMPROVE THE PATIENT EXPERIENCE

Research has now shown that monitoring the depth of anesthesia decreases the occurrence of postoperative delirium. Brain function monitoring with Bispectral Index™ (BIS™) technology during surgical procedures gives anesthesia providers the ability to directly monitor the anesthetic effect on the patient’s brain and optimize the anesthetic dosing for the individual.

Peer-reviewed literature has shown BIS™-guided anesthetic titration may aid in a reduction in the incidence of delirium in the elderly and other patient populations at increased risk. In turn, reducing delirium can positively impact health care economics by lowering total cost of care.

BIS™ brain function monitoring has also been clinically shown to reduce primary anesthetic delivery (by as much as 50%) and promote faster wake-up, recovery and discharge from the PACU.

BIS™ monitoring provides an objective measure of the patient’s depth of consciousness, and combined with your clinical experience, BIS™ technology enables you to confidently monitor and individualize the anesthetic for each patient.
BIS™ technology is quick to deploy and easy to operate. A full range of EMR-compatible products, from standalone to fully-integrated systems, provide convenient flexibility and the right solutions to a diverse range of needs.

BIS™ monitoring helps enable you to deliver a tailored, well-balanced anesthesia that protects patients during the procedure and enables a smooth postoperative recovery.

Meta-analysis of above studies show an average reduction in delirium of 36%.

For more information about BIS™ technology, contact your local sales representative, or www.everybodysBIS.com.


