Deeper, Safer, Faster: Benefits the QED-100 delivers regardless of which anesthetic agent you use.

Deeper: The QED-100 affords you the opportunity to maintain high enough anesthetic concentrations to prevent intraoperative awareness, right up to the end of the case, without compromising quick emergence.

Safer: When activated, the QED-100 produces mild hypercapnia that increases the patient's spontaneous respiratory drive and reduces the risk of apnea after extubation. The QED-100 moves the patient more quickly through risky stage II anesthesia and makes time to extubation more predictable.

Faster: Clinical studies have shown that the QED-100 shortens the time to extubation by up to 60%.
EMERGENCE ON YOUR TERMS

Principal of Operation

The QED-100 combines CO₂ re-breathing with hyper-ventilation to rapidly remove volatile anesthetics from the brain.

• CO₂ re-breathing produces mild hypercapnia that increases the blood flow to the brain.
• Hyperventilation rapidly removes inhaled anesthetics from the lungs and the arterial blood.
• An anesthetic absorber prevents anesthetic vapor from returning to the lungs, once it is exhaled.

It is the high brain blood flow and low anesthetic concentration in the blood that results in rapid clearance of inhaled anesthetics from the brain.

Physiology of Emergence

Protocol in brief

• Sample size: 23 with the device and 22 patients without the device
• Length of anesthesia greater than 2 hours
• All patients received 1.0 MAC of inhaled anesthetic through the end of each case (no titration/tapering)
• Opioids were administered consistently between control and experimental groups as needed for analgesia.

Physiology of Emergence

Clinically Tested

Three controlled clinical trials found a statistically significant difference in the time to extubation with and without the QED-100 for isoflurane, sevoflurane, and desflurane. Time to extubation was approximately 60% less with the QED-100. The graph shows isoflurane emergence with the QED-100 is faster than desflurane emergence without it. When the device was used there was a 55% reduction in the variability of time to extubation.

Summary of Clinical Results (n=45)

• Reduction in emergence time (up to 60%)
• Reduction in variability of emergence time (up to 55%)
• Improved spontaneous breathing

Reference:

Sakata et al., "Clinical Evaluation of a Device to Speed Emergence from Inhaled Anesthesia", 2005 IARS
Sakata et al., "Clinical Evaluation of a Device to Speed Emergence from Sevoflurane Anesthesia", ASA2005
Sakata et al, "Clinical Evaluation of a Device to Speed Emergence from Desflurane Anesthesia", ISAP 2005

Anecare corporate Bio

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