

Revolutionizing Patient Care:

Senzime's TetraGraph® System —
The Neuromuscular Monitoring Solution
that Complies with ERAS Protocols

Precision in Quantitative Train-of-Four Monitoring

The TetraGraph system by Senzime is the first portable, clinically validated EMG-based quantitative neuromuscular monitor with accurate peak-to-trough analysis, designed to support Enhanced Recovery After Surgery (ERAS) protocols. It provides continuous train-of-four (TOF) readings, enhancing muscle relaxant dosing, guiding neuromuscular block reversal, and confirming a TOF ratio >0.9 for safe extubation.

Key Benefits of TetraGraph:

- **Fast and Easy Operation:**
One-button start with an intuitive interface, allowing for seamless integration into busy anesthesia workflows.
- **Small and Portable Design:**
Compact and portable, fitting effortlessly into any clinical setting without compromising on performance.
- **Integrated Connectivity:**
Compatible with multi-parameter monitors and electronic health records (EHRs) to enhance patient data management.



TetraGraph's Role in ERAS Protocols

ERAS Guidelines and Recommendations for Quantitative TOF Monitoring

ERAS protocols emphasize the importance of minimizing postoperative complications and promoting faster recovery. Quantitative TOF monitoring is a critical component, as it ensures adequate reversal of muscle relaxants, reducing the risk of residual neuromuscular block and associated respiratory complications.

Clinical Evidence Supporting Quantitative TOF Monitoring in ERAS

Reduction in Respiratory Complications:

Clinical publications highlight that quantitative TOF monitoring significantly reduces the incidence of postoperative residual curarization (PORC), leading to fewer respiratory complications and enhanced patient safety.¹⁻²

Enhanced Patient Outcomes:

Quantitative TOF monitoring may help support improved recovery profiles, shorter hospital stays, and better overall outcomes, aligning with ERAS goals of faster recovery and reduced healthcare costs.¹⁻³

Improved Reversal of Neuromuscular Blockade:

Accurate TOF monitoring facilitates appropriate dosing of reversal agents, ensuring complete recovery from neuromuscular block minimizing the risk of residual paralysis.⁴

Unmatched Support and Quality

Clinical Expertise:

Our team of clinical specialists provides comprehensive support for successful implementation, protocolization, and continuous operation of the TetraGraph.

Comprehensive Warranty:

Demonstrating our commitment to quality and customer satisfaction.

Customer-Driven Development:

The TetraGraph was developed based on customer feedback, ensuring it meets the evolving needs of healthcare providers.

Commitment to Patient Safety

Our commitment propels healthcare providers to reach a new level of patient care, where every clinician is empowered, every patient assured, and the highest standards of care are not just met — they're invented.



Guidelines Compliance:

TetraGraph complies with the American Society of Anesthesiologists (ASA) and the European Society of Anaesthesiology and Intensive Care (ESAIC) guidelines for neuromuscular monitoring, supporting best practices in perioperative care.

Contact us at [senzime.com](https://www.senzime.com)

for more information, learn how we can support your ERAS protocols, or to request a demo.

REFERENCES:

1. APSF Newsletter. "Avoiding Postoperative Residual Weakness—A Cornerstone of Any ERAS Protocol." October 2019.
2. Gustafsson, U. O., et al. "Guidelines for Perioperative Care in Elective Colorectal Surgery: Enhanced Recovery After Surgery (ERAS) Society Recommendations." *World Journal of Surgery*, 2019.
3. Butterly A et al, Postoperative Residual Curarization from inter-mediate acting neuromuscular blocking agents delays recovery from discharge. *BR J Anaesth*; 2010.
4. Glenn S. Murphy, Sorin J. Brull; Quantitative Neuromuscular Monitoring and Postoperative Outcomes: A Narrative Review. *Anesthesiology* 2022; 136:345–361 doi: <https://doi.org/10.1097/ALN.0000000000004044>.