CV of ASSMN 2024 Invited Speaker	
	***Shu-Lin Guo***
Country	Taiwan
Position & Organization	*Chairman / Taiwan Chapter, ERAS Society*
Major Field	Anesthesiology, ERAS, System Biology
Short Bio (in 300 words)	Dr. Shu-Lin Guo is a distinguished anesthesiologist with over two decades of specialization in cardiothoracic anesthesia. He is highly esteemed within the Taiwan Society of Anesthesiologists (TSA) and the Taiwan Society of Cardiothoracic and Vascular Anesthesia (TSCVA), having received numerous accolades for his unwavering dedication to his profession. Dr. Guo has been honored with several awards recognizing his exceptional contributions to both professional services and academic research. Dr. Guo advocates for a patient-centered approach in medicine, emphasizing the importance of treating the patient rather than merely addressing the disease. He has championed the implementation of Enhanced Recovery After Surgery (ERAS) protocols, believing that such an approach, supported by a multidisciplinary team, significantly improves patient outcomes. In 2016, Dr. Guo spearheaded the formation of the ERAS team and the implementation of ERAS protocols at Cathay General Hospital in Taiwan. A leading expert in ERAS in Taiwan, Dr. Guo played a pivotal role in establishing the Taiwan Chapter of the ERAS Society in 2019. His extensive experience and expertise have been instrumental in promoting the nationwide implementation of ERAS protocols as part of Taiwan's Patient Safety Goals since 2022. Dr. Guo has successfully

	influenced the national payment system to support ERAS teams and has fostered practical consensus on ERAS practices within the professional community. Dr. Guo's dedication and passion for improving perioperative care have inspired numerous healthcare providers, leading to the widespread adoption of ERAS principles across hospitals in Taiwan. His innovative approach and commitment to excellence have transformed ERAS teamwork into a highly effective model for perioperative care.

Balancing Patient Safety and Cost-Effectiveness: A National Project of ERAS Implementation in Taiwan

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Objective:

This project aims to explore the potential of Enhanced Recovery After Surgery (ERAS) protocols in optimizing the balance between quality and cost in surgical care. While existing research suggests that ERAS protocols improve patient outcomes and reduce resource utilization, concerns remain regarding the long-term sustainability of these benefits. This study focuses on developing a sustainable, value-based payment model for ERAS implementation, addressing challenges such as manpower shortages while ensuring patient safety. The primary objective is to create a framework where a portion of the cost savings generated through ERAS can be allocated back to the ERAS team, thus providing financial support and incentivizing continued adherence to the protocols.

Methods:

This study introduces a novel pay-for-performance (P4P) model to evaluate the effectiveness of ERAS protocols in Northern Taiwan. Funded by the Taiwan National Health Insurance (NHI), this one-year pilot program is divided into three stages: ERAS application, team establishment and pre-ERAS data collection, and ERAS intervention with post-ERAS data collection. The project specifically targets elderly patients (aged 80 and above) undergoing three major surgeries: joint replacement, colorectal surgery, and lumbar spine fusion. The ERAS team is required to fully implement the protocols in clinical practice and collect comprehensive data across six domains: Team Collaboration, ERAS Compliance, Clinical Outcomes, Cost-effectiveness, Patient Satisfaction, and Functional Recovery. Additionally, participating hospitals must collect pre-ERAS data on Clinical Outcomes and Cost-effectiveness to serve as a control group.

Results:

A total of 28 hospitals in Northern Taiwan are participating in this project. All have successfully collected both pre-ERAS and ERAS data. In the Joint Replacement (JR) protocol group, the length of stay (LOS) was reduced by 31% to 4.0 days, and the complication rate decreased from 18.2% to zero, improving financial outcomes from a loss of USD 204 to a profit of USD 306 under the DRG system. In the Colorectal (CR) protocol group, LOS was reduced by 57% to 7.44 days, with a significant reduction in the complication rate from 67.7% to 11.1%, leading to an average cost savings of USD 2,707 (a 31% reduction). For the Lumbar Spine Fusion (LF) protocol group, LOS was reduced by 7.1% to 7.8 days, the complication rate decreased from 40% to 16.7%, and associated medical costs were reduced by USD 73. Across all groups, there was a significant decrease in the demand for postoperative ICU care.

Conclusion:

This NHI-funded pilot project is currently assessing the effectiveness of a novel P4P model for ERAS implementation in Northern Taiwan, with 28 hospitals participating and a focus on elderly patients undergoing joint replacement, colorectal surgery, and lumbar spine fusion. Preliminary data indicate a reduction in complications across all three protocols. While post-ERAS data collection is ongoing and will be presented upon completion, the project's design addresses manpower shortages by incentivizing ERAS team adherence through cost-saving measures. The ultimate goal is to establish a sustainable, value-based payment model that promotes the wider adoption of ERAS principles, enhances patient outcomes, and contributes to a more efficient healthcare system in Taiwan.

Keywords: ERAS, Enhanced Recovery After Surgery, Taiwan, Surgical Pathway, Patient Outcomes