

SAVING LIVES:

The Key to Preventing a Common Postoperative Complication



Join us as we explore the groundbreaking collaboration of Dr. Samuel J. Lin, MD, MBA, FACS, an Associate Professor of Plastic Surgery at Harvard Medical School, and QUAD A, the global authority in accrediting outpatient healthcare centers. Their unprecedented study built upon the legacy of QUAD A-supported articles, focusing on the risks and prevalence of Deep Vein Thrombosis (DVT) in outpatient surgery. The paper dives into the intricacies of DVT prophylaxis, accreditation compliance, and patient risk, revealing profound insights. This exploration has reshaped our understanding of outpatient surgical practices and their implications on patient well-being.

Dr. Lin and his team of researchers, Iulianna C. Taritsa, BA; Jose Foppiani, MD, and Angelica Hernandez Alvarez, MD, analyzed QUAD A's proprietary Patient Safety Data Reporting (PSDR) metrics for their research.

PSDR is a concept unique to QUAD A. As part of the accreditation process, each physician operating or performing procedures in a facility accredited by QUAD A must report quarterly data on cases, which allows population-level study of risks and rates of adverse patient events. This process is so unique that healthcare settings that are either accredited by other agencies or choose not to be accredited cannot produce comparable information, leaving regulators and practitioners with significant blind spots. Dr. Lin's team took this unique opportunity to quantify the impact of accreditation, making a compelling case for an association between noncompliance and adverse events.

The conclusions drawn by Dr. Lin and his team challenged the perception that DVTs may constitute an unavoidable surgical risk and strongly suggest that surgeons and centers can significantly reduce the risk of DVT through simple and effective means. The previous papers published by QUAD A collaborators establishing DVT as the leading cause of death among post-operative complications in outpatient surgery prompted mandates for DVT screening and prophylaxis, finding that DVT deaths that did occur could have been avoided through appropriate screening and prophylaxis. In summary, bringing the story of this important series of studies to its culmination, Dr. Lin's team found **significant evidence that when facilities undertaking outpatient surgery comply with QUAD A's existing DVT requirements, rates of adverse events fall, and vice versa. Simply put, the actions taken by the centers save lives.**

Their research has emerged as an indispensable resource, inviting healthcare leaders to examine the profound impact of accreditation on patient safety. This exploration reveals the value of QUAD A's PSDR System and showcases its unparalleled datasets.

When facilities accredited by QUAD A embrace the full scope of accreditation and maintain continuous compliance, they witness a remarkable reduction in post-operative DVTs. Their work stands as a beacon for those deeply committed to advancing the standard of patient safety. Its insights are poised to impact the safety of outpatient surgery. You can learn more about the study by reading the paper written by Dr. Lin and his team of researchers below.

White Paper: Discussion of Impact of Accreditation on DVT Prophylaxis in Outpatient Plastic Surgery

Iulianna C. Taritsa, BA; Jose Foppiani, MD; Angelica Hernandez Alvarez, MD; Samuel J. Lin, MD, MBA, FACS

The American Association for Accreditation of Ambulatory Surgery Facilities (QUAD A), along with Dr. Samuel Lin, published their data on deaths occurring in association with cosmetic plastic surgery in "National Mortality Rates after Outpatient Cosmetic Surgery and Low Rates of Perioperative DVT Screening and Prophylaxis." These results are published in the journal, Plastic and Reconstructive Surgery. Since the article's publication, the findings have shaped plastic surgery practice protocols across the country.

In the study, over 500,000 patients were identified, representing individuals undergoing outpatient plastic surgery at an accredited plastic surgery facility. Accredited surgical centers routinely verify adherence to high standards of care and patient safety. These standards include only board-certified surgeons may operate in the facility, anesthesia by qualified professionals where deeper anesthesia is required, and peer review of individual cases to gauge compliance with standards. Across five years (2012 to 2017), there were 42 total deaths from the outpatient plastic surgery patient population that were a direct result of the procedure. The majority of deaths were associated with abdominoplasty, and the cause of death was predominantly due to thromboembolic in origin. Thromboembolic events included pulmonary embolism (PE) and DVT. When investigated further, Dr Samuel Lin in partnership with QUAD A found that deaths due to PE or DVT were often due to surgical groups adapting or modifying American Society of Plastic Surgeons Task Force risk factor guidelines, specifically for venous thromboembolism risk assessment and prophylaxis with low molecular weight heparin. For example, often abdominoplasty was considered a "minor surgery," during the risk assessment calculations, obesity was not captured as a risk factor, and there was inadequate adaption of assessment tools, leading to underestimated risk factors and underutilization of anticoagulant.

The findings of the study have changed the practice of plastic surgery for outpatient procedures nationwide. Under guidance from QUAD A, accredited surgical centers now mandate the application of American Society of Plastic Surgeons Task Force thrombosis risk factor assessment guidelines, with minimal adaptation. Specifically, it is advised against removing or significantly modifying existing steps. Mandatory DVT/PE prophylaxis protocols in all accredited centers promoted patient safety and lowered patient deaths associated with these procedures.

Moving forward, it is clear that accreditation agencies are a crucial source of outpatient surgical morbidity and mortality data. The national data collected from these agencies can shape clinical practice, minimizing surgical complications. We envision a greater role for QUAD A in new aspects of data collection around patient safety in surgical centers that may further influence patient care. Collaboration between surgical care providers and accreditation agencies will continue to elucidate gaps in safety and allow outpatient surgical centers to optimize outcomes by designing solutions to meet patient needs.