

LA GENERAL AND ENGINEERING TEAM UP TO BRING F1 'PIT CREW' INNOVATION TO OPERATING ROOMS



LOS ANGELES, CA — LA General Medical Center announced a new phase of its collaboration with the University of Southern California Viterbi School of Engineering, an academic partnership focused on improving operational performance across the County's public hospital system. Led by David Belson, PhD, the long-standing, no-cost initiative brings together multidisciplinary USC graduate students from engineering, health systems management, and global medicine to work directly with LA General clinical and operational leaders. The current project partners closely with LA General's Surgery Department to improve operating room (OR) turnover efficiency.

Operating room turnover is a critical driver of surgical capacity in large safety-net hospitals. To address this challenge, the USC team is developing a coordinated "Pit Crew" model—drawing inspiration from Formula 1 racing—to streamline room setup, cleaning, and handoffs between surgical cases. The approach focuses on clearly defined roles, standardized workflows, and precise coordination to reduce delays and maximize available surgical time.

"These students bring fresh perspectives and rigorous engineering methods to one of the most complex operational challenges in healthcare," said Brad Spellberg, MD, Chief Medical Officer at LA General Medical Center. "Their work supports our ability to expand access to surgery for patients who rely on LA General and highlights the value of strong academic-public hospital partnerships."

"Even modest reductions in turnover time can translate into meaningful increases in surgical capacity," said Stephen Sener, MD, Associate Chief of Surgery at LA General Medical Center. "A structured, team-based 'Pit Crew' approach allows our staff to work more efficiently between cases, directly benefiting patient access and experience."

Over the years, teams led by Professor Belson from the Daniel J. Epstein Department of Industrial & Systems Engineering at the USC Viterbi School of Engineering have supported numerous County hospital initiatives, providing data-driven analysis and practical recommendations at no cost to the public system. Leadership at LA General Medical Center consistently reports that these collaborations produce actionable insights that strengthen daily operations and inform long-term strategic planning.

This latest effort underscores LA General's commitment to innovation, operational excellence, and academic collaboration in service of its mission to deliver world-class care for all—strengthening systems, expanding access, and improving outcomes for the communities it serves.

