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Special Ops approach to transplants boosts patient outcomes, lowers cost

Creating regional, dedicated team to recover organs increases efficiencies

• Method lowers risk for patients, increases volume for institution

ORLANDO, Fla. April 5, 2019 – An approach to organ recovery based on military-style Special Ops teams leads to better outcomes for both patients and hospitals, according to a far-reaching study of more than 1,000 heart and lung transplants in the United States. The research was presented today at the 39th Annual Meeting of the International Society for Heart and Lung Transplantation by Hassan Tetteh, MD, an Associate Professor of Surgery at the Uniformed Services University of the Health Sciences and the Chief Medical Informatics Officer with the United States Navy.

Known as STAR – Specialized Thoracic Adapted Recovery – this approach builds recovery teams that operate regionally and independent of any single institution. Comprised of board-certified transplant surgeons exclusively dedicated to heart and lung organ recovery, STAR teams lead to improved outcomes across a broad set of criteria, from productivity to volume, the study showed.

"STAR teams allow hospitals to access on-demand, highly-skilled labor to augment their existing programs," said Tetteh. "This leaves their surgeons on the ground while the highly experienced STAR teams procure the organs. For a marginal cost, hospitals can increase productivity and expand their capacity to evaluate more organs for transplantation."

Hearts and lungs need to be transplanted within four to six hours once recovered – a shorter time than other organs – causing some hospitals to forego potential donor organs because they may lack available staff to evaluate and retrieve them.

"After employing a STAR team, one institution on the East Coast more than doubled the number of transplants they performed within two years," said Tetteh. "But more importantly, the study shows that STAR teams helped enhance the quality of recovery, lowering risks and improving outcomes for the recipient."

Working with more than 25 transplant centers, STAR teams have streamlined the logistics for organ recovery while adapting to the center's protocols. The STAR teams, which currently operate on the West and East Coasts, have also amassed a wealth of data about organ recovery, and are piloting initiatives in predictive analytics for organ evaluation.

STAR's beginnings

The idea to create a team dedicated to recovery came from Tetteh's experience working with Inova Fairfax Hospital, where, over time, he became the resident expert and go-to surgeon to recover donor organs.

"I was learning more nuance every time I was doing a case," he said. "I was improving processes, and over time, that expertise became indispensable to the program. Meanwhile, trust was engendered, and another hospital asked if I could start recovering for them because they recognized it would be more efficient than giving up their own staff – and disrupting their elective surgery schedule -- to retrieve available organs."

Tetteh collaborated with mentors Robert Higgins, MD,, Surgeon-In-Chief of the Johns Hopkins Hospital, and Preben Brandenhoff, MD,. a thoracic transplant surgeon with a similar heart and lung organ recovery practice on the West Coast, to establish a robust longitudinal data set and shared best practices.

The efficiencies created through STAR teams resonated with Tetteh's military background and his interest in business. He holds an MBA from Johns Hopkins University Carey School of Business. Most importantly, Tetteh believes STAR teams will increase the number of heart and lung transplant cases performed, improve outcomes, and save more lives.

He recently shared this vision through a <u>TEDx talk</u>, "From Death to Life," recorded and hosted by the Johns Hopkins University Community and recently released on the TEDx platform.

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About ISHLT

The International Society for Heart and Lung Transplantation is a not-for-profit, multidisciplinary professional organization dedicated to improving the care of patients with advanced heart or lung disease through transplantation, mechanical support and innovative therapies. With more than 3,800 members in more than 45 countries, ISHLT is

the world's largest organization dedicated to the research, education and advocacy of endstage heart and lung disease. ISHLT members represent more than 15 different professional disciplines. For more information, visit www.ishlt.org.