Towards evidence based donor lung evaluation: The potential role for microbiomics in lung transplantation

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Lung transplantation remains the only meaningful therapeutic option for patients with end-stage lung diseases. Waiting list mortality for lung transplantation, however, remains unacceptably high due to donor lung shortage. This continues despite lung allocation systems and optimized perioperative recipient management. Less than 20% of available lung allografts are currently accepted for procurement in the US. The majority of donor lungs are rejected based on donor medical history, pulmonary imaging, impaired oxygenation, serological incompatibility, HLA domain or size mismatch and occasional preservation or logistic concerns. Few dedicated research projects have provided adequate analyses of lung allografts. A concerted evaluation of allograft specific properties in correlation with the systemic donor factors is required. In order to develop a more evidence based approach to lung allograft procurement, a prospective correlation with outcomes in the recipient is discussed. Pilot project data will be presented and a critical appraisal of the literature available in this context is presented.

Biography

Christopher W is an expert in adult thoracic surgery and lung transplantation, graduated from Freie Universitaet, Berlin, Germany. He has been a resident of Freeman Hospital, United Kingdom (cardiothoracic surgery and general and vascular surgery), Royal Berkshire Hospital, United Kingdom (general surgery) and Newcastle upon Tyne Hospitals, United Kingdom (emergency care). He is an active member of American Association of Bronchology, Chicago Trauma Society, Clinical Robotic Surgery Association, and International Society for Heart and Lung Transplantation, Royal College of Surgeons of England, Society for Cardiothoracic Surgery of Great Britain and Society of Thoracic Surgery. His clinical research focuses on lung transplantation and robotic assisted thoracic innovation. He also has studied the impact of donor and procurement related topics in lung transplantation and regenerative tissue support in thoracic surgery.

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