

Successful Staged Bilateral Lung Retransplant Followed by Living Related Renal Transplant in a Hemodialysis Patient

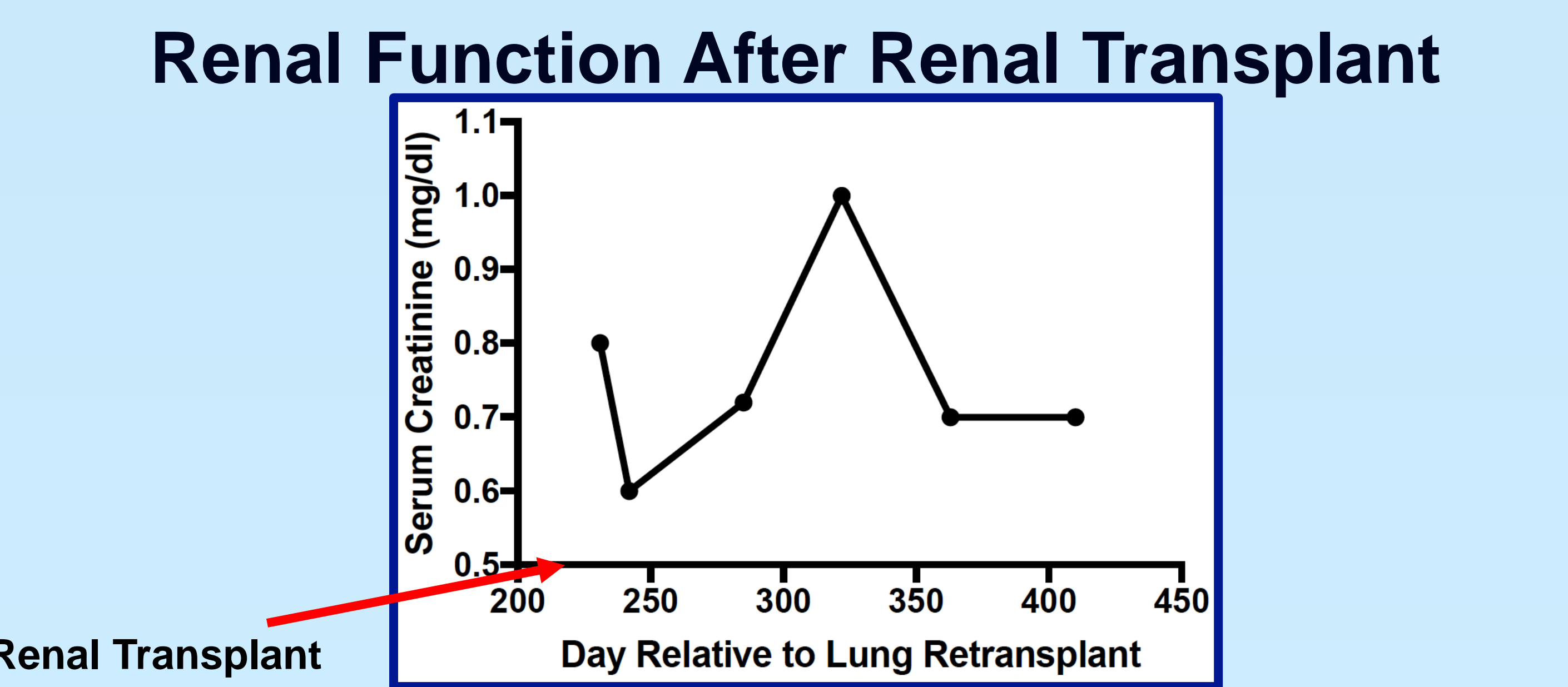
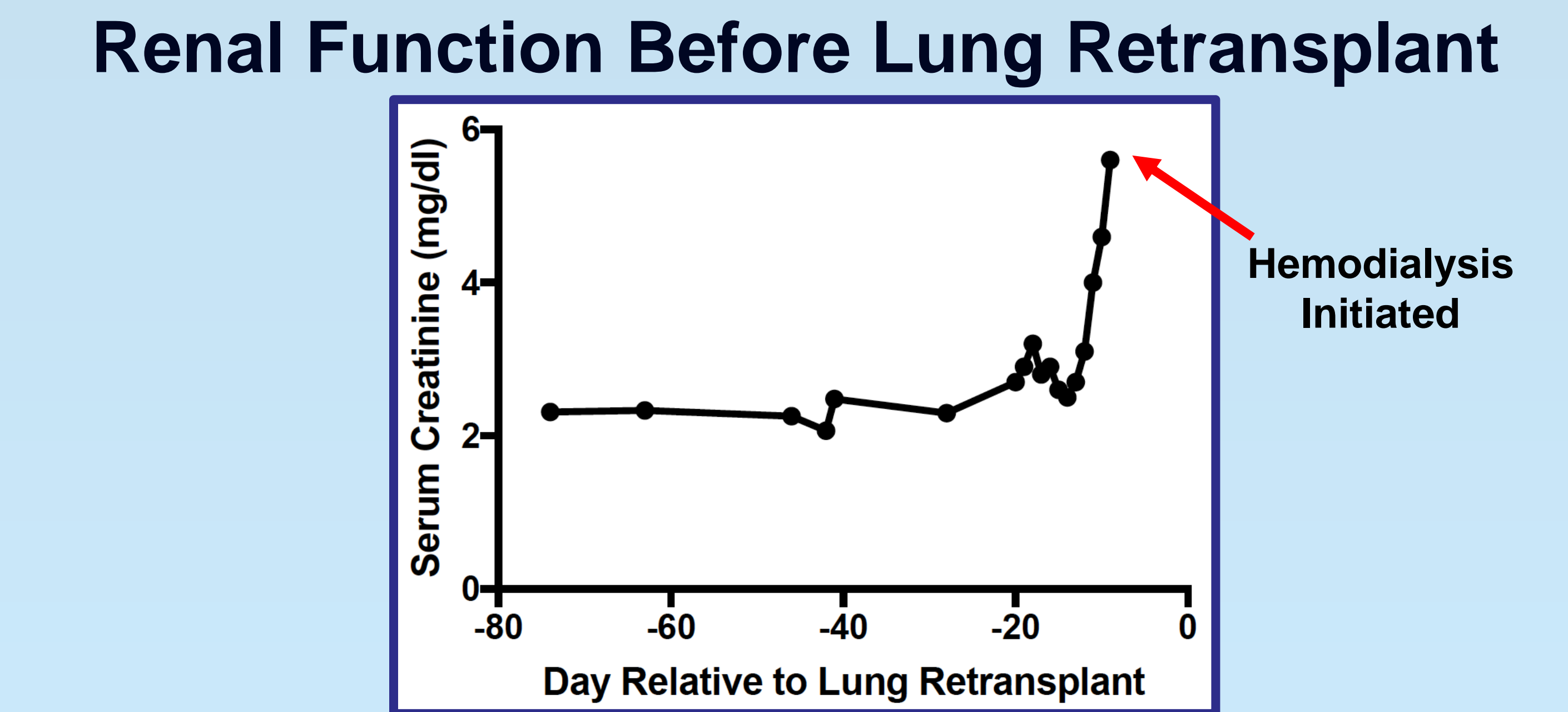
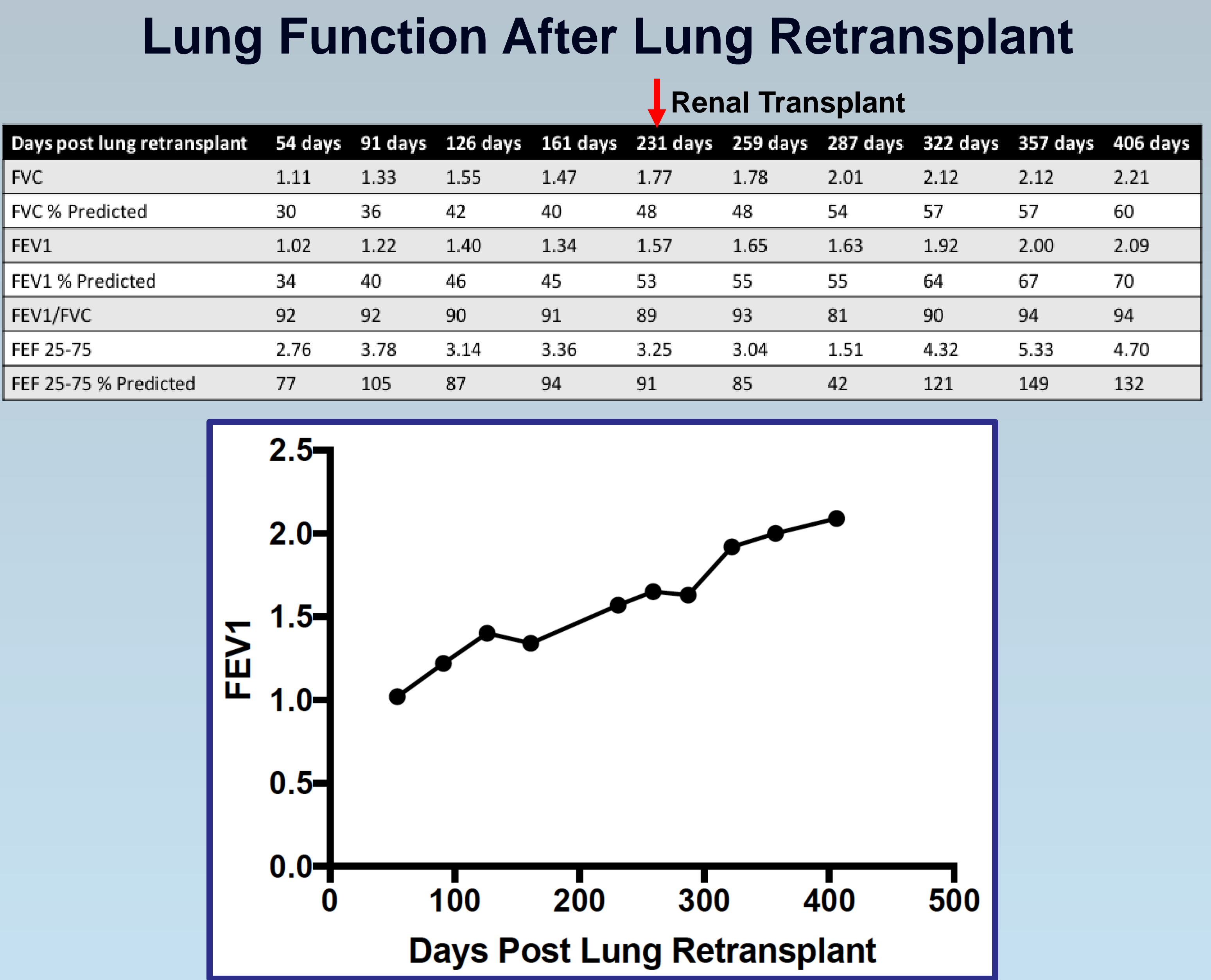
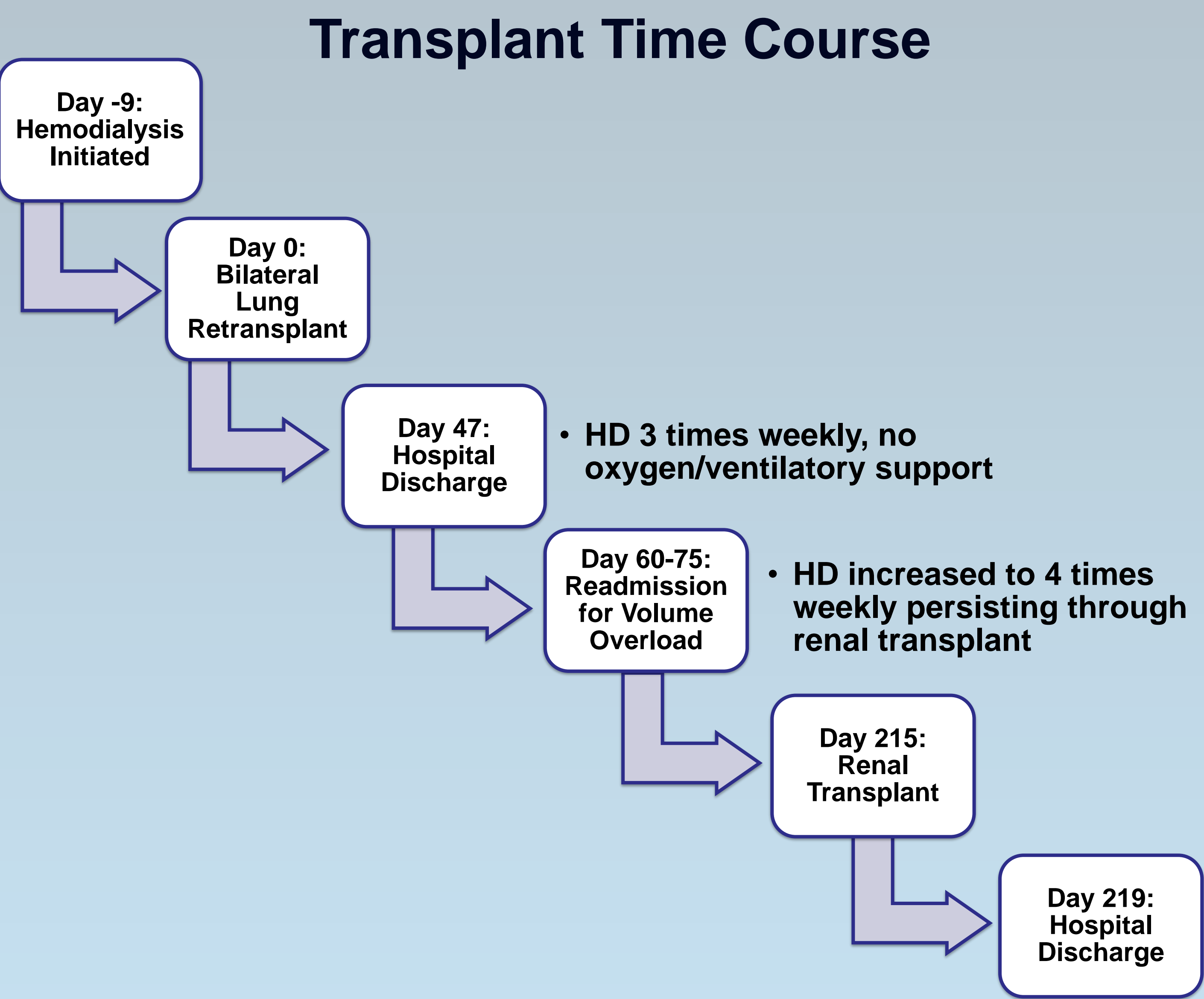
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The 2014 ISHLT consensus document for selection of lung transplant candidates states that lung transplant should not be offered to adults with untreatable significant dysfunction of another major organ system unless combined organ transplant can be performed. There is little experience in bridging lung transplant candidates who have an identified living kidney donor with hemodialysis using a staged lung followed by renal transplant approach.

Case Description

A 21 year-old woman with history of bilateral lung and liver transplant 4.5 years prior for cystic fibrosis developed severe bronchiolitis obliterans syndrome with nocturnal Bipap dependence and was listed for bilateral lung retransplant. She also had chronic kidney disease thought secondary to calcineurin inhibitor therapy. She became critically ill in the setting of a respiratory infection 1.5 years later and required intubation/mechanical ventilation as well as the initiation of hemodialysis. Early tracheostomy was performed to facilitate ventilator weaning and ongoing nocturnal support. Her renal function recovered, and she came off of dialysis. She went on to experience recurrent respiratory tract infections requiring hospitalization. Approximately 2.2 years after listing, she again became critically ill and needed increased ventilatory support and re-initiation of hemodialysis. A decision was made to proceed with lung retransplant given a living related kidney donor was identified. 9 days later, she underwent bilateral lung retransplant with cardiopulmonary bypass support. Her chest was left open until post-operative day 5, and she was maintained on VV ECMO initially. She did have A3 rejection on initial transbronchial biopsy which was treated with solumedrol effectively. The patient was discharged from the hospital on post-operative day 47. She required one re-admission for inadequate ultrafiltration at outpatient hemodialysis, and was maintained on 4 times weekly hemodialysis until living related renal transplant 7 months after lung retransplant. She is now well with last FEV1 70% predicted and normal renal function 13 months after lung retransplant.

Case Data



Summary

Staged lung followed by renal transplantation with hemodialysis as a bridge may be a viable option for select patients with end stage lung and kidney disease and an identified living kidney donor.



Photo of patient and her mother (renal donor) on the day of discharge after renal transplant. They granted permission to display this photo.



There are no relevant financial disclosures.