

# HOSPITAL PHYSICIAN®

## CRITICAL CARE MEDICINE BOARD REVIEW MANUAL

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## Bridging to Organ Transplantation: Lung, Heart, Liver

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#### I. INTRODUCTION

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With the introduction of cyclosporine in the late 1970s, transplantation of solid organs besides the kidney has become a life-saving measure for thousands of patients. Unfortunately, the number of people who would benefit from a transplant far exceeds the pool of donor organs. Often the waiting period from being recognized as needing a transplant to having one available is too long, and the patient does not survive. Research into artificial means of providing the equivalent support for the failing organ has been ongoing for as long as research into transplantation, if not longer. Progress has been made primarily in providing pharmacologic bridging therapy for failing hearts and lungs, and

mechanical therapy for hearts. An artificial liver is still in early clinical research stages, but progress thus far is promising.

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#### II. BRIDGING TO LUNG TRANSPLANTATION

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##### CASE 1 PRESENTATION

Patient 1 is a 32-year-old woman who is admitted with a chief complaint of progressive shortness of breath over a 6-month period. The patient delivered a healthy baby boy 7 months ago. One month postpartum, the patient noted shortness of breath on maximum exertion (jogging) but she thought nothing of it because she had been “deconditioned” during the pregnancy.