

## **Heart & Lung III - Lung**

### **Extracorporeal life support as a bridge to lung transplantation**

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Bridging deteriorating lung transplant candidates with extracorporeal life support (ECLS) devices has evolved over the years. Although it is increasingly adopted by lung transplant centers worldwide, the overall published experience is limited and the largest series range between 100-200 cases.

The necessity and the characteristics of an ECLS program depend on factors such as local availability of donor organs, economical resources as well as the institutional experience with ECLS devices. The vast majority of lung transplant candidates can be bridged with a VV ECMO (preferably with a dual-lumen, single-site cannula), PAH patients require a VA ECMO or a PA/LA Novalung. If patients can be bridged awake, their outcome is not inferior to transplant recipients who do not require ECLS bridging. There is a consensus within the transplant community that patients should be delisted if severe complications occur during bridging. These include liver failure and sepsis; kidney failure and the development of heparin-induced thrombocytopenia is not considered as a reason to delist patients by most centers.

In conclusion, ECLS bridging has become an important strategy to stabilize deteriorating patients, however, it requires substantial experience - especially in RAS, pre-sensitized patients and patients with an expected long waiting time.