Objective
This article reviews the present state of clinical Novalung® device implementation focusing on encountered limitations and conceivable future developments in the field.

Study Design
Review.

Methods
A total of 8 retrospective, clinical studies, enrolling 225 patients altogether, were reviewed and analyzed with respect to success rate (survival %) and complications like thrombus formation, limb ischemia, infection, plasma leakage and bleeding at the cannula-site.

Results
It is noteworthy that 213 patients were reported by the University Hospital of Regensburg (Germany) in seven studies published between 2000 and 2006. The iLA application represents a reliable treatment with survival rate of 56 % and a comparatively low complication rate of 29 %.

Commentary
Extracorporeal CO₂ removal in patients with acute lung failure and ventilator refractory hypercapnia is advancing in clinical practice. For the iLA, the conducted system modifications during the last few years resulted in a continuous improvement of the device.