

## **PUMPLESS EXTRACORPOREAL CARBON DIOXIDE REMOVAL FOR LIFE-THREATENING ASTHMA**

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### **Objective**

To report the use of pumpless extracorporeal carbon dioxide removal in two cases of acute severe asthma.

### **Study Design**

Case reports

### **Methods**

Extracorporeal arteriovenous carbon dioxide removal using the Novalung device was installed in a 74-yr-old male and 52-yr-old female with life-threatening asthma and progressive hypercapnia and severe acidosis that proved nonresponsive to all other therapies.

### **Results**

The addition of extracorporeal carbon dioxide removal to mechanical ventilation corrected hypercapnia and acidosis, allowing reduction of other supportive measures. In both cases, adequate gas exchange was maintained until their underlying condition improved sufficiently for device removal. The two patients were subsequently weaned from mechanical ventilation and made a full recovery.

### **Commentary**

Extracorporeal carbon dioxide removal proved to be a valuable adjunct to mechanical ventilation and other medical treatment.

